



**REQUEST FOR BID**

**BID NO. 988-0309-22A**

**LANDSCAPE ENHANCEMENT:  
CITY PARK**

**BID DUE DATE: April 6, 2022 @ 2:00pm**

## **PROJECT GOAL:**

The City of Antioch is requesting bids from qualified, licensed Landscape Contractors to complete a landscape enhancement at **City Park** located at Tenth St and A St in Antioch CA. Contractors must have experience performing high quality landscape construction projects in public areas such as city parks. Experience working with municipalities on landscape construction projects is highly desired. Contractor must be able to provide a skilled professional work crew that can interpret construction drawings and specifications to complete the landscape projects detailed in this RFB in a timely manner. In addition, work crews must maintain a safe work area and safe traffic control for motorists and pedestrians.

## **I. GENERAL CONDITIONS**

1. **General Information** - The City Clerk Office of the City of Antioch, California, will receive bid responses at its office located at City Hall first floor [200 H Street, Antioch, CA 94509](#) on 4/6/2022 at Time 2 . PM
2. **Form of Bid** - The bid shall be made on the attached bidder's submittal form. If the form is deemed inadequate, additional information may be submitted with the bid, via an attachment of catalogs, drawings, photographs, or a letter. Letters repeating prices and details from the City's specifications must be omitted.
3. **Interpretation of Bids** - Should a bidder find discrepancies in, or omissions from the specifications, or should bidder be in doubt as to their true meaning, bidder shall submit a formal Request for Information (RFI) to the Public Works Department for an interpretation ***at least 5 days prior*** to the bid opening to the attention of Derek Traya [dtraya@antiochca.gov](mailto:dtraya@antiochca.gov). The person submitting the request shall be responsible for its prompt delivery. Any interpretation of or change in the proposed documents will be made only by an addendum published on the City's website and shall become part of any contract awarded. The City will not be responsible for any other explanation or interpretations.
4. **Addenda** - Any addenda issued by the City during the time of bidding shall be covered in the bid and shall be made a part of the contract. It is the bidder responsibility to check the City of Antioch website, for any addenda that may have been issued prior to the bid due date. <https://www.antiochca.gov/rfps/>.
5. **Bid Opening** - Bids shall be delivered to the City Clerk Office of the City of Antioch located at City Hall first floor [200 H St Antioch, CA 94509](#) on or before the day and hour set for the opening of bids. A bidder may withdraw his bid, either personally or by written request, at any time prior to the scheduled time for opening of bids.
6. **Late Bids** - Any bids received after the scheduled time of opening will be clocked in, but will not be opened or considered.
7. **No Bid** - If a bid is not made, the bid form must be returned and the reason for not bidding stated; otherwise, the vendor's name will be removed from the bidders list. If a bid is submitted without an amount, it will not be considered.
8. **Award or Rejection** - The bid will be awarded to the Contractor submitting the lowest **Base Bid Total Cost** and will be announced by way of publishing to the City's website <https://www.antiochca.gov/rfps/>

under 'Bid Tab' column. In addition, bidder must be able to meet all insurance, bond, and construction agreement requirements to be awarded the contract. **Please Note**, Add Alternative Bid #1 and Add Alternative Bid #2 bids may be awarded at the City's sole discretion but will in no way be used as a basis to award or determine the lowest Base Bid Total Cost.

**The City reserves the right to reject any or all bids, to accept or reject any one or more items of a bid, or to waive any minor irregularities or informalities in the bid.** It is anticipated that all items will be purchased, however the City reserves the right to change quantities prior to the award. Estimated quantities are no guarantee of a certain quantity to be ordered by City. The City reserves the right to make the award to the overall low bidder or split the award amongst the bidders. If the bid is on an "all or nothing" basis, this must be stated on the bid form.

- 9. Terms and Conditions** - The bidder shall not change the wording on the specifications or conditions. No words or comments shall be added to the general conditions or detailed specifications. Any explanation or alternative offered shall be set forth in a letter attached to the front cover of the specifications. Alternatives which do not substantially comply with the City's specifications cannot be considered. Conditional bids cannot be accepted.
- 10. Brand Names**- The make or brand and grade of the article on which the bid is submitted should be stated on the bid form.
- 11. Payment Terms** - Must be indicated by filling in the proper blanks on the bid form. Cash discounts of less than 20 days will be considered net. The standard terms at the City of Antioch are Net 30 days.
- 12. FOB Point** - It is understood that the bidder agrees to deliver FOB Destination, with no freight charges to the City. All costs for packing, delivery, drayage, postage, freight, express, or for any other purpose are to be borne by the bidder.
- 13. Approved Equal – Brand names and numbers, when used, are for reference to indicate the character or quality desired.** The use of the name of a manufacturer, or any special brand or make, in describing any item in the bid documents does not restrict bidders to that manufacturer or specific article. An equal of the named product will be given due consideration if literature is submitted with the bid showing that the product is of equal or better quality and utility to that specified by the City. Determination of acceptability of any product shall be solely at the City's discretion.
- 14. Tax** - No bid shall include federal excise tax, in as much as the City is exempt per published IRS regulations concerning state/local governments. The City is obligated to pay applicable state sales or use taxes.
- 15. Samples** - When requested, bidders shall submit properly marked samples of the article(s) on which bid is made to the City. Any sample submitted must be clearly marked in such a manner that the marking is fixed, so that the identification of the sample is assured. Such marking shall state (1) name of bidder, (2)

number of bid, and (3) item number. Samples, when required, must be furnished free of expense to the City, and if not destroyed by tests, will upon request be returned at bidder's expense unless retained by City for future comparison.

- 16. Inspection** - All items furnished shall be subject to the inspection of the City, and unsuitable items may be rejected. Defective items shall be made good by the vendor in a manner satisfactory to the City.
- 17. Assignment** - No assignment by the contractor or any contract to be entered into hereunder or of any part thereof, except of funds to be received thereunder by the contractor, will be recognized by the City unless such assignment has had the prior written approval of the City.
- 18. Warranty** - Terms of any warranty offered by the manufacturer or the bidder shall be included with the bid. Contractor warrants all work done and goods provided under this Agreement shall at the minimum:
- a) meet all conditions of the Agreement;
  - b) shall be free from all defects in design, material and workmanship; and
  - 3) shall be fit for the purposes intended. If any defects occur within said 12 months following acceptance, Contractor shall be solely responsible for the correction of those defects.
- 19. Timely Delivery** – If indicated in the bid form, bidder shall indicate time of delivery as the number of calendar days following receipt of the order by the contractor to receipt of the goods or services by the City. Time of delivery may be a consideration in the award.

Time is of the essence, and the purchase order is subject to termination for failure to deliver on time. The acceptance by buyer of later performance with or without objection or reservation shall not waive the right to claim damage for such breach nor constitute a waiver of the requirements for the timely performance of any obligation remaining to be performed by the vendor.

- 20. Liquidated Damages** - If delivery does not occur on schedule, it is understood that the City will suffer damage. It being impractical and infeasible to determine the amount of actual damage, it is agreed that the contractor shall pay to the City the sum of three hundred (\$300.00) dollars per day for each and every calendar days delay in finishing the contract.
- 21. Termination for Default** - The City may, by written notice of default to the vendor/contractor, terminate the contract in whole or in part should the vendor/contractor fail to make satisfactory progress, fail to deliver within time specified therein or fail to deliver in strict conformance to specifications and requirements set forth therein. In the event of such termination, the City reserves the right to purchase or obtain the supplies or services elsewhere, and the defaulting vendor/contractor shall be liable for the difference between the prices set forth in the terminated order and the actual cost thereof to the City. The prevailing market price shall be considered the fair repurchase price. If, after notice of termination of this contract under the provisions of this clause, it is determined for any reason that the Contractor was not in default under the provisions of this clause, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to the Termination for Convenience clause. The rights and remedies of City provided in this article shall not be exclusive and are in addition to any other rights and remedies provided by law or under resulting order.

- 22. Termination for Convenience** - The City may, by written notice stating the extent and effective date, terminate any resulting order for convenience in whole or in part, at any time. The City shall pay the vendor as full compensation for performance until such termination the unit or pro rate price for the delivered and accepted portion, and a reasonable amount, as costs of termination, not otherwise recoverable from other sources by the contractor as approved by the City, with respect to the undelivered or unaccepted portion of the order, provided compensation hereunder shall in no event exceed the total price. In no event shall the City be liable for any loss of profits on the resulting order or portion thereof so terminated. The rights and remedies of City provided in this article shall not be exclusive and are in addition to any other rights and remedies provided by law or under resulting order.
- 23. Fiscal Year** - Obligation for payment of any contract beyond the current fiscal year end is contingent upon the availability of funding from which payment can be made. No legal liability shall arise for payment beyond June 30 of the calendar year unless funds are made available for such performance.
- 24. Equal Opportunity** - Contractor shall not discriminate, on the basis of a person's race, religion, color, national origin, age, physical or mental handicap or disability, medical condition, marital status, sex, or sexual orientation or any other prohibited basis under federal or state law, against any employee, applicant for employment, subcontractor, bidder for a subcontract, or participant in, recipient of, or applicant for any services or programs provided by Contractor under this Agreement. Contractor shall comply with all applicable federal, state, and local laws, policies, rules, and requirements related to equal opportunity and nondiscrimination in employment, contracting, and the provision of any services that are the subject of this Agreement, including but not limited to the satisfaction of any positive obligations required of Contractor thereby.
- 25. Business License** – The City of Antioch requires that any contractor doing business within the city limits must hold a valid City of Antioch Business License prior to merchandise delivery (by vendor) or services provided.
- 26. Governing Law** - This contract shall be construed and interpreted according to the laws of the State of California with venue for any action under this Agreement in Contra Costa County, California.
- 27. Liabilities** -- Contractor shall indemnify, save and hold harmless from and defend the City, its officers, agents and employees, against any and all claims, costs, demands, causes of action, suits, losses, expense or liability arising from, or alleged to have arisen, from any acts or omissions of Contractor, its agents, sub-contractors, officials or employees, in connection with the execution of the work covered by this Agreement, as it may be amended, except for the sole negligence or willful misconduct of City. This indemnification includes any claim that the materials or equipment provided under this Agreement, or any tool, article or process used in manufacture of such tools or equipment, constitutes an infringement of any patent issued by the United States. This entire indemnification provision shall survive termination or cancellation of this Agreement.
- 28. Right to Audit** -- The City of Antioch reserves the right to verify, by examination of vendors' records, all invoiced amounts when firm prices are not set forth in the purchase agreement.

**29. Assignment** -- In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of part 2 of Division 7 of the Business and Professions Code), arising from the purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

**30. Surety Bonds** – The Bidder is required to submit a bidder’s bond if included on the Bid Form. Unless stated to the contrary in the Detailed Specifications, Contractor is required to provide the following surety bonds from an admitted and authorized surety in California in the full amount of the work to be performed: **A Payment Bond shall be required.**

**31. Prevailing Wage** - Where labor is required for public work as part of this contract, pursuant to the provisions of the Labor Code of the State of California, contractors shall pay no less than the minimum wages established by the Director of the Department of Industrial Relations of the State of California. **It shall be required that the contractor’s DIR# be written on the sealed, Bid package for verification purposes. If no DIR# is stated, the submitted Bid package will not be reviewed.**

To the extent applicable, Contractor shall comply with the requirements of the California Labor Code including but not limited to hours of labor, nondiscrimination, payroll records, apprentices, workers' compensation and prevailing wages.

No less than the general prevailing rate of per diem wages, and not less than the general prevailing rate of per diem wages for holidays and overtime work, for each craft, classification or type of worker needed to execute the work under this Agreement shall be paid to all workers, laborers and mechanics employed in the execution of the work by the Contractor or any subcontractor doing or contracting to do any part of the work. The appropriate determination of the Director of the California Department of Industrial Relations shall be filed with, and available for inspection, at the City offices. Contractor shall post, at each job site, a copy of the prevailing rate of per diem wages. The Contractor shall forfeit fifty dollars (\$50.00) for each calendar day or portion thereof for each worker paid less than the stipulated prevailing rates for any public work done under the Agreement by it or by any subcontractor under Contractor.

The City reserves the right to request and review the contractor’s payroll records in the form of certified payroll records. In the event certified payroll records are requested, they are to be submitted via email to [dtraya@antiochca.gov](mailto:dtraya@antiochca.gov). Furthermore, Contractor is to submit two sets: one complete and one redacted of private information [On the second copy the name, address and social security number of the individual employees must be redacted (blacked out).]

**32. Appeals** -- Any actual or prospective bidder, or contractor that has a grievance in connection with any City solicitation or award of contract may protest in writing pursuant to the provisions in Antioch Municipal Code section 3-4.03. Protestors are urged to seek resolution of their complaints initially with the using department.

**33. Contract Documents** - The work embraced herein shall be performed at the locations covered in this bid and in accordance with the current Standard Specifications of the State of California, Business and Transportation Agency, Department of Transportation. In addition to the State Specifications, the following will also apply: i.e.: these Specifications; the Bid; the Contract, required herein; any supplemental agreements amending or extending the work; working drawings or sketches clarifying or enlarging upon the work specified herein; and to pertinent portions of other documents included by reference thereto in these Specifications.

The Successful bidder shall be expected to agree to and comply with all terms addressed in the attached Sample Maintenance and Trade Services Agreement. The bidder shall not change the wording in the attached specifications or conditions. No words or comments shall be added to the general conditions or detailed specifications. Conditional bids cannot be accepted. (See Attachment "B" for sample MSA)

**34. Insurance** -- Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees, or subcontractors. All certificates and endorsements must be emailed to [dtraya@antiochca.gov](mailto:dtraya@antiochca.gov), with the name of the contract clearly identified on the certificates and endorsements AND annual renewals automatically be generated and emailed as instructed. See Attachment "C" for complete insurance requirements.

THIS SECTION INTENTIONALLY LEFT BLANK

## **II SPECIFICATIONS**

### **Requirements:**

#### **Hours of Operation**

The Contractor shall have a representative available to meet with City of Antioch personnel during the normal City working hours, which are 7:00 a.m. to 4:00 p.m., Monday through Friday, except holidays. Contractor may work on Saturdays with prior permission from City representative. Per Antioch Municipal Code, Section 5-1705, construction noise is limited on weekdays, no construction noise prior to 7:00 am and after 6:00 pm, and further limited to 8:00 am and 5:00 pm if within 300 feet of occupied dwellings.

#### **Contract Length & Effective Dates**

**Contractor shall have sixty (60) days from the time the construction agreement is executed, and a notice to proceed (NTP) is issued to complete the City Park Landscape Enhancement.** Failure to complete the project on time may result in liquidated damages. Please refer to Section I. number 20 "Liquidated Damages" of this RFB.

#### **Bonds**

Only a Payment Bond is required for this project. (See Attachment "A" for sample payment bond form and requirements)

#### **PAYMENTS & INVOICING**

No payment shall be made until the project is completed and a site inspection has been performed by the City of Antioch or its representative and all deficiencies corrected. The City of Antioch or its representative shall alone determine when the job is complete. Inspection shall include but is not limited to proper irrigation coverage and watering of all landscaped areas. In addition, inspection of all plant material and workmanship as well as cleanup of work site will be required. Invoices must list the City issued purchase order number and be itemized as per the bid submittal worksheet including the location of work and any line item numbers. Any City approved changes must be listed on the invoice separately. All information and invoices are to be provided in email format and paper copy to Derek Traya [dtraya@antiochca.gov](mailto:dtraya@antiochca.gov). The City shall have **30 days net** to make payment from the date the City completes its final inspection, approves all work performed by the Contractor and receives a proper invoice.

### **General Scope Of Work:**

#### **Contractor To Provide**

A safe, motivated, and skilled work crews capable of productively performing the landscape enhancements as specified in the construction plans and specification sheets of this RFB in a highly efficient and productive manner. Contractor shall be responsible for completing all aspects of the job including but not limited to labor, materials, equipment, notification, traffic control and any other incidentals required to complete the work safely and efficiently as outlined in this RFB. The contractor will be required to replace or redo any portion of the work that does not meet the approval of the City. The City of Antioch will be the sole judge of the quality of the work. All punch list work or redo's will be at the complete expense of the contractor. At least one crew member must be able to communicate with City staff in English both verbally and in writing. Contractor's crew members must act professionally and communicate with City customers and residents in a polite and courteous way at all times. If quality or conduct does not meet our standards, the City will, at its own discretion, stop the job and move to the next responsible bidder.

### **Detailed Scope of Work:**

#### **City Park Enhancement**

The landscape enhancement at City Park consists in removal of some landscaped areas "grubbing", soil preparation, irrigation repairs and installation, turf renovation/hydroseeding, and planting of plant material



according to the detailed plans and specifications below. Contractor must adhere to the specifications and construction plans described below at all times. If Contractor is unsure or has a question concerning the interpretation of the specifications or construction plans, contractor must contact the City or its representative to ensure compliance with the standards and specifications as outlined in this RFB. Failure to do so may result in nonacceptance of work performed by the Contractor. The City of Antioch will be the sole judge of the quality of the work performed by the contractor and whether it meets the standards as set forth by the specifications and construction plans of this RFB.

**City Park Construction Plans (Exhibit A):**

Please download Exhibit A on the City's Website @ <https://www.antiochca.gov/rfps/>

**City of Antioch Construction Details (Exhibit B):**

Please download Exhibit B on the City's website @ <https://www.antiochca.gov/rfps/>

**City Park Specifications:**

**SECTION 31 10 00  
CLEARING, GRUBBING AND MISCELLANEOUS DEMOLITION**

**PART 1 - GENERAL**

1.01 RELATED DOCUMENTS

- A. The General Conditions of the Contract, including General and Special Provisions and General Requirements apply to the work in this section.

1.02 DESCRIPTION

- A. Work Included: Furnish all labor, materials, equipment, facilities, transportation and services to complete all clearing and demolition and related work as shown on the drawings and/or specified herein.
  - 1. Clearing and Grubbing
  - 2. Removal and Disposal of Miscellaneous Construction Items and Debris

**PART 2 - MATERIALS**

2.01 EQUIPMENT

- A. Equipment shall be suitable for the work to be done and shall be in first-class condition. Equipment operators and workmen to be skilled in operations and to be supervised by a competent superintendent.

**PART 3 – EXECUTION**

3.01 GENERAL

- A. Clear and grub future planting and paved areas as shown on Plans or as specified herein. Grubbing shall include clearing the entire root systems of all plants, weeds, and grasses.
- B. Remove and dispose of wire mesh fencing; including posts and footings, and miscellaneous deleterious materials, such as, asphalt, aggregate base, concrete, where shown on plans.

Contractor shall finish off edges at limit of fence to remain as directed by the City inspector.

- C. Dust Control: At all times during the operations, prevent the formation of an airborne dust nuisance by watering and/or treating the site of the work in such a manner that will confine dust particles to the immediate area of the work.
- D. Debris:
  - 1. Remove debris as it accumulates, except as otherwise specified. Do not store or permit debris to accumulate on the site. If contractor fails to remove excess debris promptly, the City reserves the right to cause same to be removed at Contractor's expense.
  - 2. Materials requiring removal and demolition shall become the property of the Contractor and shall be removed completely from site, unless noted otherwise on plans, and shall be disposed of at an approved site outside the city limits.
  - 3. If unforeseen items are encountered during clearing and demolition work, the Contractor shall notify the City Inspector prior to removal or demolition.

**SECTION 32 84 00  
IRRIGATION SYSTEM**

**PART 1 - GENERAL**

1.01 RELATED DOCUMENTS

- A. The General and Supplementary Conditions and General Requirements apply to the work herein specified.

1.02 DESCRIPTION

- A. Contractor shall furnish all labor, tools, equipment, product, materials and transportation and perform all operations necessary to properly execute and complete all work in accordance with the Drawings and these Specifications. The intent is to accomplish the work of upgrading the irrigation systems of the schools, which will operate in an optimum manner. This intention is to be met foregoing any deficiency in setting a complete detailed description of the work to be done.
- B. Irrigation scope is as follows:
  - 1. Upgrade existing controllers as specified on contract documents.
  - 2. Test and verify irrigation pressure.
  - 3. Test all irrigation valves within scope area to determine any irrigation deficiencies and issues that negatively impact the health of the turf.
  - 4. Replace and repair irrigation equipment as needed for properly function irrigation system.
- C. Related Work Specified Elsewhere:
  - 1. Section 32 90 00: Landscape Planting

1.03 QUALITY ASSURANCE

- A. Reference Standards:
  - 1. ASTM: American Society for Testing and Materials
    - a. D1785: Standard Specification for polyvinyl chloride (PVC) plastic pipe, Class 200, Class 315.

- b. D2446: Standard Specification for polyvinyl chloride (PVC) plastic pipe fittings, Schedule 40 and Schedule 80.

B. Drawings:

1. For purposes of clarity and legibility, drawings are essentially diagrammatic related to the turf areas to be repaired. Irrigation field repairs shall be based off field conditions and associated record drawings of the irrigation plans, provided by the District.
2. The contractor shall not willfully install the irrigation system as shown on the drawings when it is obvious in the field that unknown obstructions, grade difference or discrepancies in area dimensions exist that might not have been considered in engineering. Such obstructions or differences shall be brought to the attention of the irrigation consultant. In the event this notification is not performed, the contractor shall assume full responsibility for any revision necessary.

1.04 VISIT TO THE SITE

- A. The contractor shall visit the construction site and shall take all measurements and obtain any other information as may be necessary for a complete and conclusive bid.

1.05 SUBMITTALS

- A. Substitutions: Prior to installation, any proposed substitution from the plans or these specifications is to be forwarded, in writing, to the irrigation consultant for approval.
- B. Contractor to submit information on replacement controllers, irrigation heads and any necessary irrigation equipment to upgrade the irrigation system as noted in the contract documents.
- C. Record Drawings: Provide record drawings as follows:
  1. The contractor shall maintain in good order in the field office one complete set of prints of all sprinkler drawings, which form a part of this contract. In the event any work is not installed as indicated on the drawings, such work shall be indicated and dimensioned accurately on record drawings as changes occur. Dimension from two permanent points of reference, building corner, sidewalk, road intersections, etc., the location of the following items.
    - a. Connection to existing water lines
    - b. Connection of existing electrical power
    - c. Routing of pressure lines (dimension max. 100 feet lone along routing)
    - d. Electrical control valves
    - e. Routing of control wires
    - f. Quick-coupling valves
    - g. Underground stub-outs
    - h. Replaced irrigation equipment that was not functioning properly.
  2. Upon completion of the work, obtain reproducible mylar from the landscape architect and neatly correct the plans (to be done by a competent draftsman) to show the as-built conditions. After the as-builts are reviewed and approved by the irrigation consultant, obtain reduced copies of "as-built" mylar (11" x 17" sheets or to the smallest readable size that will fit into controller), and laminate with weather proofing coating as specified below to be used as controller charts.

1.06 PROJECT COORDINATION

- A. Sequencing and Scheduling: Coordinate irrigation installation work with the installation of other site improvements, including utility installation work and landscape installation.
- B. Environmental Conditions: Site work such as trenching, and backfilling shall not be performed during wet, muddy or frozen conditions.
- C. Rules and Regulations: All work and materials shall be in full accordance with the latest rules and regulations of the National Electric Code; the Uniform Plumbing Code and other applicable state or local laws or regulations. Nothing in these drawings or specifications is to be construed to permit work not conforming to these codes.
  - 1. The contractor shall furnish any additional material and labor required to comply with these rules and regulations, though the work is not mentioned in these particular specifications or shown on the drawings.
  - 2. When the specifications call for materials or construction of a better quality or larger size than required by the above-mentioned rules and regulations, the provision of the specifications shall take precedence over the requirements of the said rules and regulations.
- D. Safety:
  - 1. The contractor shall erect and maintain barricades, guards, warning signs, and lights as required for the protection of the public and workmen.
  - 2. All work shall be performed in a safe manner. All regulations, all OSHA requirements and other authoritative agencies shall be followed.
  - 3. Prior to commencement of work, locate all underground utilities so that proper precautions may be taken not to damage such improvements.
- E. Maintaining Traffic: It is the responsibility of the contractor to ensure adequate protection and controls for pedestrian and vehicular traffic in the vicinity of the project areas. The contractor shall provide all signs, barricades, flagmen, etc., necessary to meet all traffic requirements for this project at his own expense.
- F. Permits and Fees: The contractor shall obtain all permits and pay all required fees to any governmental agency having jurisdiction over the work and arrange for inspections specified by local ordinances during the course of construction as necessary.

**PART 2 - PRODUCTS**

**2.01 PRODUCT DELIVERY, STORAGE AND HANDLING**

- A. Handling of pipe and fittings: The contractor is cautioned to exercise care in handling, loading, unloading, and storing of pipe and fittings. Cracks can occur from sudden impact. Protect all plastic products from excessive exposure to sunlight. Any section of pipe that has been dented or damaged shall be removed from the site and, if installed, shall be replaced with new undamaged piping.

**2.02 MATERIALS**

- A. PVC Pressure main line piping and fittings:
  - 1. Pressure main line piping: Shall be per District standards

2. Pipe shall be made from NSF approved, Type 1, Grade 1 PVC compound conforming ASTM D1784. All pipes shall meet requirements set forth in ASTM D2441 with an appropriate standard dimension ratio.
  3. All PVC pipes shall bear the following markings:
    - a. Manufacturer's name
    - b. Nominal pipe size
    - c. Schedule or class
    - d. Pressure rating in PSI
    - e. NSF
    - f. Date of extrusion
  4. All fittings shall bear the manufacturer's name or trademark, material designation, size, applicable I.P.D. schedule and NSF seal of approval.
- B. PVC non-pressure lateral line piping and fittings:
1. Non-pressure buried lateral line piping shall be per District standards.
  2. Pipe shall be made from NSF approved, Type 1, Grade 1 PVC compound conforming to ASTM D1784. All pipes shall meet requirements set forth in ASTM D2441 with an appropriate standard dimension ratio.
  3. Except as heretofore specified, all requirements for non-pressure lateral line pipe and fittings shall be the same as for solvent-weld pressure main line pipe and fittings as specified.
- C. Sleeving and Conduit: Material shall be per District standards.
- D. Galvanized steel pipe shall be Schedule 40; ASTM (A120) and steel fittings shall be Schedule 40 hot dipped, double banded malleable steel.
- E. PVC Schedule 80 nipples shall be used with molded threads. Machined threaded nipples will not be allowed.
- F. Riser assemblies shall be per District standards.
- G. Controller(s), valves, backflow preventer(s) and sprinkler heads shall be per District standards.
- H. Control wires shall be per District standards.
- I. Miscellaneous installation materials:
1. Solvent weld joints shall be of make and type approved by manufacturer (s) of pipe and fittings. Solvent cement shall be a proper consistency throughout use. Mixing thinner with solvent will not be allowed.
  2. Pipe joint compound shall be non-hardening, non-toxic materials designed specifically for use on threaded connections in water carrying pipe.
  3. Wire connections shall be 3M DBY-6 seal packs or approved equal.
- J. Control or Valve Boxes:
1. Control and valve boxes that require replacement shall be District standards.

**PART 3 - EXECUTION**

### 3.01 GENERAL

- A. Irrigation system shall be installed in accordance with all applicable local and state codes and ordinances by a licensed landscape contractor.
- B. Follow manufacturer's direction except as shown or specified.

### 3.02 INSPECTION OF SITE CONDITIONS

- A. All scaled dimensions are approximate. The contractor shall check and verify all size dimensions prior to proceeding with work under this Section.
- B. Exercise extreme care in excavating and working near existing utilities. Contractor shall be responsible for damages to utilities, which are caused by his operations or neglect. Check existing utilities drawings for existing utility locations.
- C. Coordinate installation of irrigation materials, including pipe, so there shall be no interference with utilities or other construction or difficulty in planting trees, shrubs, and groundcover.
- D. Avoid trenching within drip line of trees where possible. When not possible, all damaged roots over 1-1/2" in diameter shall be cut leaving clean face, seal cuts with tree seal, then immediately install pipe, wire, etc., refill trench and soak.
- E. The contractor shall carefully check all grades to satisfy himself that he may safely proceed before starting work on the irrigation installation.
- F. Coordinate the work of this Section with that of other Sections for the location of pipe sleeves through walls, paving, etc.
- G. The landscape contractor shall verify water pressure and available gallonage prior to construction. If deficiencies are noted that will hinder the system's performance, notify the irrigation consultant for directions to correct deficiencies.

### 3.03 PREPARATION - LAYOUT OF WORK

- A. Prior to installation, stake out all pressure supply lines, routing and location of sprinkler heads and notify irrigation consultant for reviewing layout when area or grade differences or obstructions are not as indicated on the plans.

### 3.04 INSTALLATION

- A. Trenching:
  - 1. Dig trench straight and support pipe continuously on bottom of trench. Lay pipe to an even grade. Trenching excavation shall follow layout shown on drawings
  - 2. Provide for a minimum of 18 inches cover for all pressure supply lines.
  - 3. Provide for a minimum cover of 12 inches for all non-pressure lines to spray heads.
  - 4. Provide for a minimum cover of 18 inches for all control wiring.
  - 5. Provide a minimum cover of 24 inches over pipe and wiring under asphalt pavement.

B. Backfilling:

1. Do not backfill trenches until all required tests are performed. Carefully backfill trenches with specified excavated materials for backfilling, consisting of earth, loam, sandy clay, sand, or other acceptable materials, free from large clods of earth or stones. Backfill shall be mechanically compacted in landscaped areas to a dry density equal to adjacent undisturbed soil in planting areas. Backfill shall conform to adjacent grades without dips, sunken areas, humps or other surface irregularities.
2. Surround pipe with sand in rocky terrain with a 4" bed and 4" cover.
3. Backfill in proposed asphalt paved areas shall have sand covering pipe with a 6" minimum depth.

C. Pipe and Fitting Installation and Connections:

1. Provide each assembly with its own outlet.
2. Install all assemblies specified herein in accordance with details shown on drawings.
3. Thoroughly clean PVC pipe and fittings of dirt, dust and moisture before installation. Installation and solvent welding methods shall be as recommended by the pipe and fitting manufacturer.
4. On PVC to metal connections, the contractor shall work the metal connections first. Use Teflon tape, or equal, on all threaded PVC to PVC, and on all treaded PVC to metal joints.
5. Install piping under existing walks by boring whenever possible. Where any cutting or breaking of sidewalks and/or concrete is necessary, it shall be done and replaced at no increase in contract sum. Obtain permission to cut or break sidewalks and/or concrete from the architect before proceeding. No hydraulic driving will be permitted under concrete paving.

D. Line clearance:

1. All lines shall have a minimum clearance of 6 inches from each other and from lines of other trades. Parallel lines shall not be installed directly over one another.

E. Automatic Controller(s):

1. Locate controller(s) in general location(s) shown with exact placement to be determined at job site by the irrigation consultant or Owner's Representative.
2. Connect control lines to controller(s) in sequential arrangement according to assigned identification number on plans.
3. Controller(s) shall be properly grounded per Article 250 of the National Electric Code and conform to local regulations.

F. Remote Control Valves:

1. Install where shown on drawings. When grouped together, allow at least 12 inches between valves. Install each remote-control valve in a separate valve box. Locate boxes in groundcover areas whenever possible, and a minimum of 12 inches from paving or curbs.

G. Control Wiring:

1. Make connections between existing automatic controls and electrical control valves with direct burial copper wire. Common wires shall be white. Install in accordance with valve manufacturer's specifications and wire charts.
2. Wiring shall occupy the same trench and shall be installed along the same route as pressure supply or lateral lines wherever possible. When not possible, house wiring in PVC conduit as described in "Sleeving and Conduit" section.

3. Where more than one wire is placed in a trench the wiring shall be taped together at intervals of 10 feet.
4. Provide 2-foot expansion coil at each wire connection and at least every 100 feet of wire length on runs more than 100 feet in length. Form expansion coils by wrapping at least five turns of wire around a 1-inch diameter pipe, then withdrawing the pipe.
5. Splicing on runs shall be placed in junction boxes. Indicate all splices on the As-Built Plan.
6. All below grade wire connections shall be made by using heat shrink tubing with interwall sealer following manufacturers recommended procedures.
7. Install separate common wire for each controller. Install extra control wires of a different color through all valve boxes to controller as indicated in irrigation notes on plans.

H. Sleeving and Conduit:

1. Control wiring passing under proposed concrete and paving shall pass through Schedule 40 PVC conduit-size as required.
2. Sleeving and conduit shall extend six (6") beyond farthest edge of pavement or curb.
3. Provide removable non-decaying plug at ends of sleeves and conduits to prevent entrance of earth.

I. Flushing of System:

1. After all new pipelines and risers are in place and connected, all necessary diversion work has been completed, and prior to installation of sprinkler heads, open control valves and use a full head of water to flush out the system.
2. Install sprinkler head only after flushing of system has been accomplished.

J. Sprinkler Heads:

1. Install sprinkler heads as shown on Drawings.
2. Spacing of heads shall not exceed maximum shown on Drawings. In no case shall spacing exceed maximum recommended by manufacturer.

### 3.05 FIELD QUALITY CONTROL

A. Adjustment of the System:

1. Flush and adjust all sprinklers for optimum performance and to prevent overspray onto walks, roadways and buildings.
2. If it is determined that adjustments in the irrigation equipment will provide proper and more adequate coverage, the contractor shall make such adjustments prior to planting. Adjustments may also include changes in nozzles sizes and degrees of arc as required.

B. Testing of Irrigation System:

1. Notify the irrigation consultant at least three (3) days in advance of testing.
2. Test to be done at no extra cost to the Owner.
3. Center load piping with sufficient amount of backfill to prevent arching or slipping under pressure. No fitting shall be covered.
4. Testing of pressure main lines shall occur prior to installation of electrical control valves.
5. Pressure Test for Solvent Weld Pipes:



- a. Apply test for solvent welded plastic pipe after joints have cured at least 24 hours or more if manufacturer of solvent cement requires.
  - b. Test supply lines per ASTM-F690 as follows: (1) add water slowly to pipe to avoid water hammer damage, (2) bleed system to insure all air is out of pipes, (3) pressurize system to 125 psi for two (2) hours. Visually inspect for leaks while system is holding pressure constant. Note – use hydraulic pump or other safe method  
– do not use air compressor.
  - c. Test sprinkler lines at line pressure and visually inspect for leaks.
6. When the irrigation system is completed, perform a coverage test to determine if the water coverage for planting areas is complete and adequate. Furnish all materials and perform all work required to correct any inadequacies of coverage due to deviation from drawings. This test shall be accomplished before any plant material is planted.
  7. Upon completion of each phase of work, test and adjust entire system to meet site requirements.

### 3.06 CLEAN-UP

- A. Clean-up shall be made as each portion of work progresses. Refuse and excess dirt shall be removed from the site, all walks and paving shall be broomed or washed down, and any damage sustained on the work of others shall be repaired to original conditions.

### 3.07 FINAL REVIEW PRIOR TO ACCEPTANCE

- A. Operate each system in its entirety at time of final review. Any items deemed not acceptable shall be reworked to the satisfaction of the irrigation consultant.
- B. Final review shall take place after submission of all specified lists, record drawings, and manuals.

### 3.08 INSPECTIONS

- A. The contractor shall be subject to inspections at any and all times by authorized representatives of the Owner.

### 3.09 MAINTENANCE

- A. The contractor is to make all repairs and maintain the entire sprinkler system from the time of installation through the landscape maintenance period.

### 3.10 WARRANTY

- A. The contractor shall repair or replace any irrigation found to be defective in material or workmanship within the entire sprinkler system from the time of installation through the warranty period, as outlined in the Guarantee form provided in these specifications; See page 18 or 39.

**GUARANTEE FOR SPRINKLER IRRIGATION SYSTEM**

WE HEREBY GUARANTEE THAT THE SPRINKLER IRRIGATION SYSTEM WE HAVE FURNISHED AND INSTALLED IS FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP, AND THE WORK HAS BEEN COMPLETED IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. WE AGREE TO REPAIR OR REPLACE ANY DEFECTS IN MATERIAL OR WORKMANSHIP, ANY SETTling OF BACKFILLED TRENCHES, WHICH MAY DEVELOP DURING THE PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE AND ALSO TO REPAIR OR REPLACE ANY DAMAGE CAUSED BY ANY DEFECTS IN THE IRRIGATION SYSTEM OR RESULTING FROM THE REPAIRING OR REPLACING OF SUCH DEFECTS AT NO ADDITIONAL COST TO THE OWNER. ORDINARY WEAR AND TEAR, UNUSUAL ABUSE OR NEGLIGENCE ARE EXCEPTED. WE SHALL MAKE SUCH REPAIRS OR REPLACEMENTS, INCLUDING COMPLETE RESTORATION OF ALL DAMAGED PLANTING, PAVING, OR OTHER IMPROVEMENTS OF ANY KIND, WITHIN A REASONABLE TIME, AS DETERMINED BY THE OWNER, AFTER RECEIPT OF WRITTEN NOTICE. IN THE EVENT OF OUR FAILURE TO MAKE SUCH REPAIRS OR REPLACEMENTS WITHIN A REASONABLE TIME AFTER RECEIPT OF WRITTEN NOTICE FROM THE OWNER, WE AUTHORIZE THE OWNER TO PROCEED TO HAVE SAID REPAIRS OR REPLACEMENTS MADE AT OUR EXPENSE AND WE WILL PAY THE COSTS AND CHARGES THEREFORE UPON DEMAND.

LOCATION: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

LICENSE NO: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

GUARANTEE TO: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DATE OF ACCEPTANCE: \_\_\_\_\_

AUTHORIZED REPRESENTATIVE: \_\_\_\_\_

**SECTION 32 90 00  
LANDSCAPE PLANTING**

**PART 1 - GENERAL**

1.01 DESCRIPTION

A. Work to be Included:

1. Furnish all labor, materials, equipment, rentals, facilities, transportation, incidentals, excavations, submittals and services for installation of plant material and related work as shown on the drawings and/or specified herein including all topsoil, compost, fertilizer, sod, seed, maintenance, warranties and all other incidentals to planting work and as necessary for a complete and full installation of Landscape Planting.

B. Related Work:

1. Section 32 92 13 – Hydroseed
2. Section 32 84 00 – Irrigation: Irrigation system shall be repaired, adjusted, and operative before beginning planting operation

1.02 RELATED DOCUMENTS

A. The General and Supplementary Conditions and General Requirements apply to the work herein specified.

B. References:

1. Manufacturer's recommendations.\
2. Nomenclature: "Western Garden Book," Sunset Publishing Co., Menlo Park, CA, 2001 edition or current edition.
3. Plant Material Standards: "American Standard for Nursery Stock", American Nursery & Landscape Association, 1000 Vermont Avenue, NW Suite 300, Washington, DC, or current edition.
4. Staking and guying procedures: "Staking Landscape Trees", University of California Extension, Publication #2576, or current publication.
5. Pruning procedures: "Tree Pruning Guidelines", International Society of Arboriculture, Savoy, IL, 1995 or current edition, conforms to ANSI-A300-1995 tree pruning specifications and guidelines.

1.03 REGULATORY REQUIREMENTS

A. Perform work in accordance with all applicable laws, codes, and regulations required by the City and any other authorities having jurisdiction over such work. Provide for all inspections and permits required by Federal, State, and local authorities in furnishing, transporting, and installing materials.

1.04 PERFORMANCE REQUIREMENTS

- A. Supervision: Assign a full-time employee to the job as Foreman for the duration of the Contract with a minimum of four (4) years' experience in landscape installation. Foreman to be present during the entire installation. Notify Owner's Representative of all changes in supervision.

1.05 QUALITY ASSURANCE

- A. Personnel:
  - 1. All planting and turf work shall be performed by competent and efficient personnel familiar with planting and turf procedures under the supervision of a Qualified Foreman.
  - 2. Installing contractor shall have successfully completed within the last 3 years at least 3 planting applications similar in type and size to that of this project.
- B. Plant Material Standards:
  - 1. Plant Certification: All plants must meet specifications of Federal, State, and County laws requiring inspection for plant disease and insect infestations. Inspection certifications required by law shall accompany each shipment, invoice and order for stock.
  - 2. Codes and Standards: Nursery stock shall meet the standards of the current edition of the "American Standard for Nursery Stock", "Agricultural Code of California" and the "Regulations of the Director of Agriculture Pertaining to Nursery Stock". They shall be true to type and name in accordance with "Standardized Plant Names", Second Edition.
  - 3. Use only nursery-grown stock that is free from insect pests and diseases. Any required clearances shall be obtained prior to shipment of plant material.
  - 4. Plants shall be subject to inspection and approval of the Landscape Architect at place of growth or upon delivery for conformity to specifications. Such approval shall not impair the right of inspection and rejection during progress of the work. Wherever the terms "approve", "approval" or "approved" are used herein they mean approval of the Landscape Architect in writing.
  - 5. Contract Grown Plants: Contract grown plant material does not relieve the landscape contractor of providing materials which do not match or exceed standard nursery stock. Plants which do not meet standards shall be rejected and the Contractor shall provide nursery grown stock as required at no additional cost to the Owner or contract.

1.06 SUBSTITUTIONS

- A. Substitutions: Substitutions of plant materials will not be permitted unless authorized in writing by Owner's Representative. If proof is submitted that any plant specified is not obtainable, a proposal will be considered for use of the nearest equivalent size or variety with corresponding adjustment of Contract price. Such proof shall be substantiated and submitted in writing to Owner's Representative.
- B. The Contractor shall submit a list of un-available plants per project plant list and a list of all nurseries and plant brokers contacted a maximum of 15 days after Notice to Proceed.

- C. The Landscape Architect reserves the right to require the Contractor to replace at the Contractor's cost any plants which the Contractor has installed without the Landscape Architect's approval.

#### 1.07 SUBMITTALS

All submittal data shall be forwarded in a single package to the Owner's Representative within 15 days of award of contract.

- A. Furnish 1 copy of manufacturers' literature for the following items:

1. Grass Seed, and fertilizer mix
2. Pre-Emergence Weed Killer
3. Fertilizer
4. Fertilizer Tablets
5. Organic Amendment
6. Pre-Emergence Weed Killer

- B. Soil Testing: Provide soil analysis from an approved testing laboratory. Soil analysis using Saturate Media Analysis will not be allowed and rejected outright for soil analysis. Soil analysis shall include pH, salinity, sodium hazard, boron hazard, lime content, organic matter, soil texture and available nutrient levels. Submit test results, analysis, and recommendations for:

1. Existing site topsoil (2 samples per field, per school)  
Topsoil Analysis: Obtain representative samples of topsoil taken from approved site locations and submit to approved testing agency for "agricultural suitability" analysis report, including evaluation of physical and chemical properties of soil and recommendations for adding amendment and fertilizers to the soil. Upon approval of the Laboratory's report by the Owner's Representative, the report recommendations become a part of the Specifications. Adjust the quantities of soil amendment, fertilizer and other additives to conform to the report.

- C. Certificates of Compliance, receipts, and /or delivery tickets for the following:

1. Soil amendment, chemical and physical properties. Do not deliver amendment to the site without approval of submittals by Owner's Representative.
2. Quantity of soil amendment delivered to site for incorporation into soil.
3. Sod: Submit information from sod farm company, including type and percentage of seed mixture for approval by Owner's Representative.
4. Grass Seed Mixes.
5. All other soil amendments, soils, compost, delivered to the site.

#### 1.08 ADDITIONAL SAMPLES AND TESTS

- A. Owner's Representative reserves the right to take and analyze samples of materials for conformity to specifications at any time. Contractor shall furnish samples upon request by Owner's Representative. Rejected materials shall be immediately removed from the site at Contractor's expense. Cost of testing of materials not meeting specifications shall be paid by Contractor.

## 1.09 PROJECT SITE CONDITIONS

- A. Site Visit: At beginning of work, visit and walk the site with the Owner's Representative to clarify scope of work and understand existing project site conditions. Identify location of utilities and other improvements. Notify Owner's Representative of conflicts prior to start of work for resolution.
- B. Access: Inspect project site and become familiar with the accessing requirements and restrictions. At time of submitting bid, provide written notice of any conditions that would prevent installation of the specified plant material.

## 1.10 JOB CONDITIONS

- A. Delivery:
  - 1. Deliver manufactured materials in original containers with brand and maker's name marked thereon. Materials in broken containers or showing evidence of damage will be rejected and must be immediately removed from the site. Odorous materials shall not be brought to the site until they are to be used. Deliver quantities necessary to complete the work shown on the Drawings. Any discrepancy in the quantities given on the plans shall not entitle Contractor to additional remuneration.
  - 2. Deliver Bulk materials to the job site and store to deter mixing with other bulk materials, saturation by rainwater, contamination and/or contact with other deleterious substances or materials.
  - 3. Contractor shall endeavor to coordinate delivery with installation schedule so that all delivered sod material is installed on the same day.
- B. Storage:
  - 1. Deliver Bulk materials to the job site and store to deter mixing with other bulk materials, saturation by rainwater, contamination and/or contact with other deleterious substances or materials.
  - 2. Deliver plants with identification labels.
    - a. Labels should state correct name and size.
    - b. Use durable, water-proof labels with water resistant ink that will remain legible for at least 60 days.
  - 3. Protect plant materials during transport to prevent damage to rootball or desiccation of leaves.
  - 4. Remove unacceptable plant materials immediately from job site.
  - 5. Contractor shall endeavor to coordinate delivery with installation schedule so that plant material is installed on the same day.
- C. Under no circumstances shall any work be performed if the temperature exceeds 90 degrees or is below 40 degrees. No planting shall be done with the soil saturated with water.

## 1.11 PROTECTION OF EXISTING PLANTS TO REMAIN

- A. Do not store materials or equipment, permit burning, or operate or park equipment under the branches of any existing plant to remain except as actually required for construction in those areas.

- B. Provide barricades, fences or other barriers as necessary at the drip line to protect existing plants to remain from damage during construction.
- C. Notify Owner's Representative in any case where Contractor feels grading or other construction called for by Contract Documents may damage existing plants to remain.
- D. If existing plants to remain are damaged during construction, Contractor shall replace such plants of the same species and size as those damaged at no cost to Owner. Determination of extent of damage and value of damaged plant shall rest solely with Owner's Representative.

**PART 2 - PRODUCTS**

2.01 SOIL AMENDMENTS

- A. The following organic amendments, soil amendments, and fertilizer rates and quantities are to be used for bid basis only. Contractor shall arrange and pay for testing by an accredited soils laboratory of existing site soil after rough grading operations are complete, and shall amend the soils according to said laboratory's recommendations. The soils recommendations shall be considered a part of this specification.
- B. Topsoil: Provide topsoil as required to complete landscape work. Topsoil to be furnished shall be fertile and friable, possessing characteristics of representative productive soils on the site. It shall not contain toxic substances which may be harmful to plant growth. If herbicide contamination is suspected, then a radish/rye grass growth trial must be performed. Consult with Owner's Representative prior to decision to test. It shall be uniformly textured and free of all objectionable foreign materials, oil, or chemicals which may be injurious to plant growth. Natural topsoil shall possess a pH factor between 5.5 and 7.5, a sodium adsorption ratio (SAR) of less than 8, a boron concentration of the saturation extract of less than 1 ppm, and salinity of the saturation extract at 25 degrees C. of less than 4.0 millimhos per centimeter.

Obtain topsoil from naturally well- drained sites where topsoil occurs in a depth of not less than 4 inches; do not obtain from bogs or marshes. Topsoil from the project stockpile which meets the requirements is acceptable.

- C. Organic Amendment:
  1. For bidding purposes, assume Soil Amender Compost, available from Organic Solutions, ph. 707-751-0466 or approved equal. Application rate per 1000 square feet: 6 cubic yards Organic Compost
  2. Organic Amendment: Feedstock shall be no longer recognizable. Compost amendment shall contain fairly uniform particle size, no weed sprouts. Submit a nutrient analysis and testing data from a third party or soil lab, such as the STA Seal of Testing Assurance by the US Composting Council; or OMRI, Organic Materials Review Institute. Organic Compost shall meet the following criteria:
    - a. Particle size: 100% passing a 1" screen or smaller.
    - b. Salt Concentration: Must be reported; may vary but < 4.0 mmhos/cm preferred. Soil should be test. <2.5 mmhos/cm preferred for soil/compost blend.
    - c. Feedstock Materials shall be specified and include at one or more of the following: landscape/yard trimmings, grass clippings, food scraps, and agricultural crop residues.
    - d. Nutrient Content: provide analysis detailing nutrient content including N-P-K; Ca; Mg; S; and Bo. Nitrogen content 1% or above preferred.

- e. Trace Contaminants Metals (Lead, Mercury, etc.). Product must meet US EPA, 40 CFR 503 regulations.
- f. pH: pH shall be between 5.5 and 8.
- g. Visible Contaminants: compost shall be relatively free of inert ingredients, including glass, plastic and paper, < 0.1 % by weight or volume.
- h. Moisture Content shall be between 35% - 55% of dry solids.
- i. Organic Matter Content: 50% - 60% by dry wt. preferred, 30-70% acceptable.
- j. Carbon and Nitrogen Ratio: C:N < 20:1.
- k. Stability/Maturity: shall have a dark brown color and a soil-like odor. Compost exhibiting a sour or putrid smell, containing recognizable grass or leaves, or is hot (120F) upon delivery or rewetting is not acceptable.
- l. Weed seed/pathogen destruction: provide proof of process to further reduce pathogens (PFRP). For example, turned windrows must reach min. 55C for 15 days with at least 5 turnings during that period.

D. Fertilizer:

- 1. Turf areas:
  - a. 6N-20P-20K, 25 lbs. per 1,000 square feet or 6N-24P-24P, 15 lbs. per 1,000 square feet.
  - b. Starting one month after planting, on a monthly basis until start of Maintenance Period, apply 12N-8P-16K fertilizer. 7 lbs. per 1,000 square feet.

2.02 GRASS SEED

- A. All seed shall be fresh, clean, new crop seed having at least 98% pure, weed-free mixture and a minimum of 85% GERMINATION, RECLEANED, Grade A "new crop" seed, delivered in the original containers, unopened and bearing a guaranteed analysis and dealer's label. Seed mix shall be mixed in the proportions by weight shown. Most seed mixes available from Pacific Coast Seed, Inc or approved equal. Or as below.
- B. Drought tolerant, rather coarse, suitable for commercial/office projects:
  - 1. Match the seed blend to the sod supplier- Pacific Coast seed for sod and seed. Apply at a rate of 10 lbs. per 1,000 square feet.
- C. Suitable for play fields:
  - 1. 'Duration' available from: Clyde Robbins Seed Company, (510) 785-0425 Apply at a rate of 10 lbs. per 1,000 square feet.

2.03 TOP MULCH

- A. Recycled Pro-Chip Decorative Mulch, dark brown Available from Earth Tones Mulch, 1-800- 536-6702, or approved equal.

2.04 WATER SOURCE

- A. All watering shall be provided by existing overhead irrigation systems. Contractor shall adjust and modify all irrigation prior to Seed and Sod work. Water shall be provided by Owner.



## 2.05 GROUNDCOVERS, TREES, AND SHRUBS

- A. All plant materials shall be nursery grown in accordance with the best-known horticulture practices and under climatic conditions similar to those in the locality of the project. Container stock shall have grown in the containers in which delivered for at least six (6) months, but not over two years. No container plants that have cracked or broken balls of earth when taken from container shall be planted except upon special approval by Owner's Representative.
- B. Roots to be healthy and extend to the bottoms and sides the container with no signs of restriction due to kinked, circular or distorted growth or deformed or circling roots at the liner stage. Rooting to be extensive enough to hold the rootball together during planting, but not as dense as to discourage root establishment into surrounding soils. No plants with roots that have encircled themselves will be accepted. In case of any unsatisfactory root system, a total group of plants may be rejected.
- C. Plants shall be vigorous and shall have a normal habit of growth. Plants shall be free of damage by insects, pests, diseases or wind; burns from insecticides or fertilizer; and stunted growth due to lack of water, lack of food, diseases, or other causes. Plants shall be in conformity with the sizes shown on the drawings.
- D. Trees: Unless otherwise specified, tree trunks shall be straight with leader intact, undamaged, and uncut. All old abrasions and cuts are acceptable only if completely callused over.
- E. Quantities: Quantities necessary to complete the work as shown on the drawings shall be furnished.

## 2.06 TREE SUPPORT POLES

- A. Peeled, lodge pole pine logs, treated with Chemonite or ACQ or approved equal, clean, smooth, new, and sized as follows:
  - 1. Three-inch (3") diameter by ten (10') long for trees greater than 8 feet high and 1 inch caliper.

## 2.07 TREE TIES

- A. Flexible strap, 24-inch minimum length without sharp edges adjacent to trunk, V.I.T. cinch-ti, or approved equal.

## 2.08 WEED KILLER

- A. Clean non-staining as recommended by a licensed pest control specialist and as approved by the City in compliance with the Owner's Representative's Integrated Pest Management Policy.

## **PART 3 - EXECUTION**

### 3.01 SURFACE CONDITIONS

### 3.02 FIELD QUALITY CONTROL/INSPECTIONS

- A. Progress observations: In addition to the installation observations specified below, the Owner's Representative may make periodic progress observations.
- B. Installation observations: Request at least 5 working days in advance:
  - 1. Observation of irrigation coverage.
  - 2. Observation of layout and placement of Sod and Seed at time of planting.
  - 3. Observation of any field drainage or irrigation problems, as identified by Contractor

The above shall be considered check points and the Contractor shall only proceed with the work after the Owner's Representative has visited the site and determined that the work is proceeding satisfactorily.

### 3.03 REVIEW AND ACCEPTANCE OF PLANT MATERIAL

- A. Do not install material that has not been reviewed and accepted by Owner's Representative.
- B. Contractor shall arrange and pay for permits and inspections required for delivery of plant material.

### 3.04 FINE GRADING AND SOIL PREPARATION

- A. General Fine Grading and Soil Preparation
  - 1. The Contractor shall prepare the site for seed and sod work. In the areas designated for repair on the plans, he shall inspect all turf areas and remove all rock and other foreign material.
  - 2. Do not work planting soil in a wet or muddy condition or dump or spread in areas where subgrade is not in proper condition.
  - 3. Water settling, puddling, and jetting of fill and backfill materials, as a compaction method is not acceptable.
  - 4. Maintain moisture content of materials during compaction operations within required moisture range to obtain indicated compaction density.
  - 5. Contractor shall repair all holes, depressions, tunnels, or other grading depressions or high spots within the area of work with clean import planting soils suitable for turf.
- B. Drag to a smooth, even surface. Finish grade of all sod and seed areas shall conform evenly and uniformly to all adjacent lawn areas.
- C. Soil Mix for Backfill of Shrubs, Trees and Ground Covers: The following ingredients shall be tumbled to achieve a homogeneous mix:
  - 1. Organic amendment 1 cubic yard
  - 2. Topsoil 3 cubic yards
- D. Contractor to remove any lime treated soil from planting areas and over excavate for drainage prior to the placement of topsoil and import soil backfill.
- E. Cultivation and Placement of Amendment:
  - 1. Hold finish grade and/or mulch surface in planting areas 1/2-inch below adjacent pavement surfaces, tops of curbs, manholes, etc.
  - 2. Spread soil amendment, fertilizers and other additives evenly over installed and rough graded topsoil in all sod and seed areas at the rates specified in the soils

analysis report. For bid basis, use the following rates (Do not apply fertilizer to areas to be hydroseeded).

3. In seed areas, cultivate soil to a depth of 2". Incorporate 6 cubic yards per 1000 square feet of organic amendment. Prior to planting incorporate to a depth of 2" the following fertilizers, per 1000 square feet:
  - a. 6N-20P-20K at 15 lbs./1000 sq. ft.
  - b. Iron Sulfate: 1.5 lbs. per 1,000 square feet.

F. Finish Preparation in Turf Areas:

1. Roll to compact amended soil to not more than 85% compaction. Finish grade shall be 1" below adjacent paving, curbs, or walls unless otherwise shown on drawings. Finish out smoothing, even surfacing conforming to established grades after settlement. Rake immediately prior to planting.
2. If rain is likely between completion of soil preparation and planting, precautions shall be taken to prevent erosion of the soil.

3.05 GRASS SEEDING:

A. Inspection:

1. Upon the completion of the amending the soil and prior to seeding, the Contractor shall call for an inspection of the turf irrigation system. The seeding shall commence after the Owner's Representative is satisfied that the irrigation system is operating satisfactorily, and finish grade is in accord with the Drawings.

B. Seeding:

1. For over seeding procedures, existing grass shall be cut to maximum length of 2". All cuttings shall be raked and removed from lawn areas to allow a clear surface for over seeding.
2. Lightly roll surface and reshape to level humps and hollows. Secure the Owner's Representative's approval before seeding.
3. After seed bed has been prepared, distribute the grass seed mixture evenly over the surface of the turf area.
4. Sow seed at recommended minimum rate per 1,000 square feet. Use an approved seeder, sowing one-half of the amount in one direction and the remaining one-half in direction 90 degrees to the first during a windless period.
5. After the seed has been sown, evenly spread the fertilizer over the entire turf area. Lightly rake the entire area to cover seed, maximum cover 1/4".
6. Immediately after completion of planting, the seeded area shall be watered slowly with a fine spray to provide a one-inch depth of penetration into the soil, and the top surface shall not be allowed to dry out at any time until after germination. Do not over saturate soils. Contractor shall reseed and/ or resod all areas which do not germinate.

C. All newly seeded turf areas shall be free of broadleaf weeds. Contractor shall remove all weeds as necessary.

D. At the time of final inspection, the turfs shall be dense, green, and weed free. It is the Contractor's responsibility to eliminate any bare spots, dead areas, and weeds.

3.06 SHRUBS AND TREES

A. Preparation:

1. Owner's Representative will review, for conformance to design intent, locations of all plants in the field prior to planting. Notify Owner's Representative and schedule layout review sufficiently in advance of planting to allow for review and adjustment without disrupting construction schedule.
2. Stake layout of trees in field before installing irrigation. Mark tree and shrub locations on site using stakes, gypsum or similar approved means and secure location approval by the Owner's Representative before plant holes are dug. Adjust as necessary prior to planting. Owner's Representative reserves the right to make minor adjustments in the layout of all plant material; adjust irrigation system as necessary.

**B. Excavation:**

1. Excavate container grown tree, shrub, groundcovers and vine pits as follows. If rocks, underground construction work, tree roots or other unknown obstructions are encountered in the excavation of plant holes; Owner's Representative may select alternate locations. Report all such conditions in writing to the Owner's Representative. Where locations cannot be changed, submit a written proposal and cost estimate for removing the obstructions to a depth of not less than 6 inches below the required hole's depth. Obtain Owner's Representative's instructions prior to proceeding with the work affected.

<u>Excavation for</u>	<u>Width</u>	<u>Depth</u>
Boxed Trees	Box + 24"	Box + 12"
Canned Trees/Shrubs (15 or larger gal)	Can + 24"	Can + 12"
Canned Shrubs/Vines (2.5 to 5 gal)	Can + 18"	Can + 8"
Canned Shrubs/Groundcover/Vines (1 gal)	Can + 12"	Can + 6"

All plant pits shall be dug with vertical walls. The sides and bottoms of all planting pits shall be thoroughly scarified to ensure root penetration.

**C. Percolation Testing:**

1. Contractor shall verify water drainage of all planting pits with a percolation test prior to planting.
2. Fill full sized planting pit with water and observe in 24 hours.
3. Notify Owner's Representative if planting pit has not fully drained before proceeding with the planting operation for all areas not draining, and all soil conditions considered detrimental to growth of plant material. State condition, and proposal and cost estimate for correcting the condition.
4. Obtain Owner's Representative's instructions prior to proceeding with work affected.
5. Repeat drainage testing and correction of conditions until tests are passed.
6. Failure to perform drainage tests, or to notify Owner's Representative in writing of conditions specified above, renders Contractor responsible for all plant failure that occurs as a result of inadequate drainage or detrimental soil conditions, as determined by Owner's Representative.

**D. Plants in Containers:**

1. Plants shall be removed carefully from their containers after the containers have

been cut on two sides minimum; fifteen-gallon containers shall be opened in three places. In the case of boxed plant specimens, the wood shall be removed at the sides and at the bottom of the box.

2. After removing plant material from its container, stimulate root growth by making four or five vertical cuts 1" deep around the circumference of the root ball.
3. Do not lift or handle plants by the top, stems, or trunk at any time. All plants shall be lifted in such a manner that the root ball is supported from the underside.
4. The Contractor shall check all plants for adequate root systems. If the root system is defective, he shall remove deficient plants from the site and replace them with new ones.

E. Planting:

1. Carefully remove and set plants and trees without damaging the rootball. Do not install plants or trees with damaged rootballs. Cutting or scoring of rootballs to be done only if species is known to be tolerant of such treatment. Superficially cut tolerant plants' edge roots vertically on three sides using a knife.
2. For trees remove sides of boxes after positioning the plant and partially backfilling.
3. Center plant in pit or trench over tamped mound.
4. Face for best effect.
5. Set plant plumb and hold rigidly in position.
6. All plants shall be set in the ground so that the root ball will be flush with the finish grade. All plants that settle below the finish grade within 30 days of acceptance of the work shall be replanted in the proper position. In case a total section of planting area settles, the Contractor shall lift the plants, import additional soil mix, regrade, and replant, at no additional cost to the Owner.
7. Back fill:
  - a. Backfill plant holes with soil mix as specified, free from rocks, clods or lumpy material. Backfill native soil free of soil amendments under rootball and foot tamp to prevent settlement.
  - b. Set plants in backfill with top of the rootball 2 inches above finished grade. Backfill remainder of hole and soak thoroughly by jetting with a hose and pipe section. Water backfills until saturated the full depth of the hole. Thoroughly water all plants immediately after planting, eliminating air pockets. Prevent erosion.
  - c. The filled pit shall be flush with surrounding grade when complete.
8. When the plant pit has been approximately one half filled, place planting tablets according to the manufacturer's schedule and per Section 2.01 Subsection K Fertilizer, paragraph 2.
9. Build 6" high watering basin berms around trees and shrubs to drain through rootball. Basins are not required around trees in turf areas.
10. Apply post-planting fertilizer.
11. Planting operation for plants in raised concrete planters is same as above except that finish grade of soil mix shall be 1 1/2" below top of planter walls. Planters may be backfilled with excess topsoil up to the depth specified for plant pits above which backfill shall be soil mix.
12. Planting operations for plants in precast planters is the same as stated in paragraph 11 above. Fill entire planter with soil mix. Place planters as shown on planting plans.

3.07 GROUND COVER AREAS

A. Planting:

1. Plant in neat, straight, parallel and staggered rows as indicated on plan. Plant first row one-half required ground cover spacing behind adjacent curbs, structures, or other plant bed limits. Plant ground cover to edge of water basins of adjacent trees and shrubs.
2. Space plants equally and uniformly at spacing indicated on the Drawings, which are the maximum and in a triangular pattern.
3. Plant pits shall be sufficiently large so that the root can be freely suspended in the pit. After backfilling the pit, firm the soil so that there will be no air space around the roots.
4. Apply post-planting fertilizer.
5. Mulch all ground cover areas with 3" layer of mulch.

### 3.08 WATERING

- A. Water all trees, shrubs and ground cover immediately after planting. Apply water to all plants as often and in sufficient amount as these conditions may be required to keep the plants in a healthy vigorous growing condition until completion of the Contract. Do supplemental hand watering of trees and shrubs during the first 3 weeks of plant establishment as necessary.

### 3.09 TREE STAKING

- A. Stake trees as indicated on the Drawings. Drive stake until solid and remove excess stake protruding above top tree tie to prevent rubbing against branches. Allow 1 to 3 inches sway in trunk or branches; do not pull tight.
- B. Tying: Find the proper support height by holding the trunk in one hand and pulling the top to one side and releasing it. The lowest height, at which the trunk will return to the upright position when the top is released, is the height at which to attach tree ties.

### 3.10 TOP MULCH

- A. Except where rock mulch is required, mulch all shrub and ground cover areas with organic mulch to a 3-inch depth. Mulch ring at trees in turf areas to be 3-foot diameter for up to 36-inch box. Do not pile mulch around crowns of plants. Keep root crown free of mulch.

### 3.11 CLEAN UP

- A. Keep all areas of work clean and neat at all times. Upon completion of planting, all cans, boxes, and other debris that is a part of the planting operation shall be removed from the site.
- B. All pavements shall be washed off, and site shall be left in an absolutely clean condition. All planting areas shall be cultivated and weed free before final inspection. Clean-up operations shall take place throughout the course of work so that walks and drives are clean at all times.

### 3.12 PRE-MAINTENANCE/PLANT ESTABLISHMENT PERIOD REVIEW AND APPROVAL OF PLANTING

- A. Notify the Owner's Representative a minimum of five (5) days prior to requested Punch List and for Final Acceptance Review. Before the reviews, complete the following:
  1. Complete all work per Specifications and Plans.

2. Seed all areas per plans.
  3. Sod all areas per plans.
- B. Punchlist Inspection:
1. At this time the Contractor shall have completed all phases of the Plans and Specifications for planting and irrigation. Any discrepancies shall be noted at that time and the Contractor shall make appropriate corrections before the Final Acceptance of the work and the beginning of Maintenance Period is established.
  2. No partial approvals will be given.
- C. Final Acceptance
1. Should it be determined at the Final Acceptance visit that any punchlist item is incomplete, any further review of the site will be terminated until all items are guaranteed, in writing, to be complete by the Contractor. The cost of additional site visits by the Owner's Representative to verify completion of work shall be paid for by the Contractor.

### 3.13 PLANT ESTABLISHMENT MAINTENANCE PERIOD

- A. The planting establishment maintenance period required shall be 90 calendar days minimum after all irrigation work is complete, turf is seeded and / or sodded, and installation approved.
- B. Maintenance period shall not start until all elements of construction, planting, and irrigation for the entire project are complete. Project will not be segmented into maintenance phases, unless specifically authorized in writing by the Owner's authorized representative.
- C. A longer plant establishment and maintenance period may be required if the turf is not thick, vigorous and even, or if the work is not acceptably maintained during the maintenance period. The maintenance period may be suspended at any time upon written notice to the Contractor that the turf fields are not being acceptably maintained, and the day count suspended until the landscape is brought up to acceptable standards as determined by the Owner's Representative.
- D. Contractor shall furnish all labor, material, equipment, and services required to maintain the landscape in a healthy and attractive condition for a period of 90 days.
- E. Maintenance of grass areas shall consist of fertilizing, watering, weeding, mowing, repair of all erosion, and reseeding as necessary to establish a uniform stand of the specified grasses. Areas and parts of areas which fail to show a uniform stand of grass for any reason shall be reseeded until all areas are covered with a satisfactory stand of grass.
- F. The Contractor's maintenance period will be extended if the provisions required within the plans and specifications are not filled.
- G. General Requirements:
1. Keep all walks and paved areas clean. Keep the site clear of debris resulting from landscape work or maintenance.

2. Repair all damaged planted areas, and replace plants and reseed or resod grass immediately upon discovery of damage or loss.
3. Check sprinkler system at each watering; adjust coverage and clean heads immediately. Adjust timing of sprinkler controller to prevent flooding.
4. Keep Contract area free from weeds by cultivating, hoeing or hand pulling. Use of chemical weed killers will not relieve the Contractor of the responsibility of keeping areas free of weeds over 1-inch high at all times.
5. Protect all areas against damage, including erosion and trespass, and provide proper safeguards. Maintain and keep all temporary barriers erected to prevent trespass.

H. Tree, Shrub and Ground Cover Maintenance:

1. Maintain during the entire establishment period by regular watering, cultivating, weeding, repair of stakes and ties, and spraying for insect pests. Prune when requested by the Owner's Representative.
2. Keep watering basins in good condition and weed-free at all times.
3. Replace all damaged, unhealthy or dead trees, shrubs, vines and ground covers with new stock immediately, size as indicated on the drawings.

I. Turf:

1. Maintain all field turf areas during the entire establishment period. Cut as frequently as growth of grass requires. Cut to a height of 1.5 inches, unless otherwise directed by the Owner's Representative.
2. Maintain appropriate soil moisture at all times for healthy and vigorous turf grass.
3. Trim edges of turf at fence edges, warning tracks, paving and header boards at time of second cutting, and at each later cutting.
4. Keep the designated area under trees free of turf at all times. Do not create low area around base of tree.
5. Keep turf areas free of undesirable weeds and grasses by the application of suitable selective weed killers or hand pulling.
6. Reseed or resod all damaged areas as soon as evident.
7. Repair any hollow, settled or eroded areas by filling, rolling and resodding.

J. Watering:

1. All plants shall be kept watered as often as it is necessary to keep them in optimum, vigorous growth. The turf shall, at no time, show a lack of fresh green color or a loss of resilience due to lack of water. Watering shall be done preferably during the early morning hours.
2. Water shall be controlled so that there will be no excessive run-off, ponding, or overwatering.

K. Weed Control:

1. Weeds shall be kept under control, either by hand or by the application of herbicides designed for use on any type of weeds invading the planting areas.
2. All equipment used for herbicides shall be properly cleaned before it is used on this project. Herbicides shall be applied at temperatures recommended by the manufacturers. Herbicides shall not be used during windy or gusty days. All possible precautions shall be taken to protect vegetation which is susceptible to damage from the particular herbicides to be used.



- L. Mowing:
1. All mowing shall be done in a neat and orderly manner. Equipment shall be moved onto and off the area to be mowed in such a manner that it will not leave tracks or marks that detract from the finish turf. Timber shall be provided to move equipment over curbs, stairs, or similar constructions.
  2. Mowing equipment shall be kept in optimum operating condition. The equipment shall be washed before initial use on the project so that there will be no chance of introducing foreign seeds or diseases onto the project.
  3. Frequency of mowing shall be determined by the rate of growth of the grass. During seasons of peak growth mowing may have to be done every five days to six days; under normal conditions once a week should be adequate.
  4. The average mowing height shall be 2". The grass blades must be cut sharply and cleanly. The turf must be cut evenly so that no ridges remain in the finish cut. The direction of mowing shall be alternated each time.
  5. Grass mulching/ grass cycling is only acceptable so long as large clumps of cut grass are not left on the fields to shade out existing grass. Contractor shall remove all excess grass and grass clumps from fields.
- M. Fertilizing:
1. Upon approval and after submitting fertilizer delivery tags, top dress all turf areas by broadcasting 12-8-16 fertilizer at the rate of 7 lbs. per 1,000 square feet evenly throughout, and reapply every forty-five (45) days until acceptable or as appropriate to prevailing climatic conditions and type of plant or turf grass.
  2. Apply ammonium sulfate fertilizer as necessary to maintain vigorous, green grass between fertilizing mentioned above.
- N. Litter:
1. The Contractor shall remove promptly after pruning, trimming, and weeding or other work required under the contract, all debris generated by his performance of the work. Immediately after working in the areas of public walks, driveways or paved areas, they shall be vacuumed clean with suitable equipment. All areas covered by this contract shall be kept free of the following items: bottles, cans, paper cardboard or metallic items. Common debris and litter shall be disposed of in an appropriate manner.
- O. Rodents:
1. Contractor shall immediately notify the City of any rodent damage to the turf fields. Contractor shall be responsible for the repair of rodent damage for the duration of the maintenance period. The City shall be responsible for a rodent control program during maintenance operations.

### **3.14 FINAL PLANTING REVIEW AND WRITTEN ACCEPTANCE (TURN OVER ACCEPTANCE)**

- A. Final Review: At the conclusion of the planting establishment period, schedule a final review for Final Written Acceptance/Turn Over Acceptance. The conference shall include the Owner. Any discrepancies shall be noted at that time and the Contractor

shall make appropriate corrections before the Final Written Acceptance of the work and the beginning of Guarantee Period is established.

- B. Final Written Acceptance/Turn Over Inspection: A conference including the Owner shall be held at the completion of all project improvements and all corrective work. The Contractor shall continue to maintain the project at his own expense until all deficiencies have been corrected. Once completed, the Contractor shall request the Owner's Representative and Owner to visit the site and approve the project as complete. The Owner's Representative will accept the landscape project in writing. The date of the Final Written Acceptance letter shall be the first day of the guarantee period.
- C. Prior to either review, weed and mow and edge turf, clear the site of all debris and present in a neat, orderly manner.
- D. Submit written notice requesting review at least 5 days before the anticipated review.

### **3.15 GUARANTEE AND REPLACEMENT**

- A. Guarantee period shall be extended for a period of one year from the date of Final Written Acceptance.
- B. All plants shall be guaranteed to be alive and healthy as determined by the Owner's Representative at the end of the guarantee period.
- C. The Contractor shall replace, in accordance with the Drawings and Specifications throughout the guarantee period, any sod or seed areas that die, become bare, or in opinion of the Owner's Representative, are in an unhealthy or unsightly condition, and or have lost their natural shape due to inadequate or improper maintenance, or any other causes due to the Contractor's negligence. The Contractor shall not be held responsible for acts of vandalism, lack of irrigation water, or rodent damage, occurring after the beginning of the guarantee period.

## **SECTION 32 92 13**

### **HYDROSEEDING**

#### **PART 1 - GENERAL**

##### **1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including Division 01 Specification Sections, apply to this Section.

##### **1.02 SCOPE**

- A. Furnish and place hydroseeding and related work, including fertilizer, organic materials, seed fiber, stabilizing emulsion and all other materials shown on drawings and as specified herein.
- B. Related Work Described Elsewhere:
  - 1. Section 31 10 00 – Clearing and Demolition
  - 2. Section 32 90 00 – Landscape Planting

### 1.03 QUALITY CONTROL

- A. Reviews: The Contractor shall specifically request a review by Landscape Architect of finish grade to receive hydroseeding, and site inspection of seed, fiber and fertilizer, prior to starting work Certificates shall be submitted to Landscape Architect prior to review; see following.
- B. Nomenclature: Plant botanical names conform to "Standardized Plant Names", second edition.
- C. Schedule: Hydroseeding schedule shall be submitted to the Owner's Representative within fourteen (14) days of the signed contract.
- D. Hydroseeding limits: Shall be confirmed with the Landscape Architect prior to seeding.

### 1.04 SUBMITTALS

- A. All submittal data shall be forwarded in a single package to the Owner's Representative within 15 days of award of contract.
- B. Furnish copy of manufacturer's literature for the following items:
  - 1. Seed Mix
  - 2. Fertilizer
  - 3. Stabilizing Agent
- C. Certificates of Compliance, receipts and/or delivery tickets for the following:
  - 1. Seed Mix
    - a. Seed: Contractor shall furnish the Landscape Architect with seed supplier's certificate guaranteeing statement of composition, mixture and percentage or purity or germination of each variety, weight and origin for all seed within five days after award of contract.
  - 2. Cellulose Fiber
    - a. Cellulose Fiber for hydroseeding shall be certified for laboratory and field testing of the product and that the product meets and has been tested for all requirements specified herein. Weight of fiber material specified and shipped shall refer only to air dry weight, containing no more than 10 percent (by weight) water.
- D. Hydroseed Work Sheets: Prior to the slurry preparation the operator shall supply the Owner a worksheet and checklist showing the amount of materials to be added to each dump of the seeder and the number of dumps needed to complete this job with the seeder size to be used.

## **PART 2 - PRODUCTS**

### 2.01 MATERIALS

- A. Seed shall be of commercial quality and certified by the California Crop Improvement Association. Grass seed shall be fresh, clean, new crop seed having a minimum purity of 98.5% and a minimum germination rate of 83%.

1. Seed shall be pre-mixed and packaged by a commercial seed supplier, tagged and labeled in accordance with California Agricultural Code.
  2. Inert matter shall not exceed 5.0% nor weed content 0.5%, with no noxious weeds.
  3. Seed shall be certified composed of the mix per plans.
- B. Fertilizer:
1. Deliver fertilizer to site in original unopened containers bearing commercial manufacturer's guaranteed chemical analysis, name, trademark and conformance to California Food and Agricultural Code.
  2. Fertilizer shall be a granular type mixed by a commercial fertilizer house with a guaranteed chemical analysis of 16% Nitrogen, 20% Phosphoric and 10% Potash (16N-20P-0K) plus Sulfur (approximately 15%) or as recommended by seed company. Apply rates per seed manufacturer's recommendations.
- C. Stabilizing Agent (soil binder): Stabilizer shall be a biodegradable tackifier, non-toxic to plant or animal life, such as sentinel or M-binder.
- D. Cellulose Fiber: Fiber shall be colored with a non-toxic, water-soluble green dye to provide the proper visual gauge for metering of material over ground surfaces and shall be produced from natural or recycled (pulp) fiber, such as wood chips, similar wood materials, or newsprint, chip board, corrugated cardboard, or a combination of these processed materials.
1. Fiber shall be of such a character that upon addition and agitation in slurry tanks with fertilizer, seed, water and other additives, fibers become uniformly suspended to form homogeneous slurry.
  2. When hydraulically sprayed on the ground, fiber shall form a blotter-like groundcover impregnated uniformly with seed which allows absorption of moisture and rainfall percolation into underlying soil.
  3. Materials that inhibit germination or growth shall not be present in the mixture.
- E. Water: Shall be potable. Contractor to transport as required.

## 2.02 HYDRAULIC EQUIPMENT

- A. Use a commercial-type hydroseeder with a built-in agitation system and an operating capacity sufficient to agitate, suspend and homogeneously mix slurry of fiber mulch, seed, fertilizer, soil binder, flexible growth medium and water. Use distribution lines large enough to provide even distribution of the slurry over the ground surface to be seeded. Pump must be capable of exerting up to 150 psi at the nozzle and the slurry tank have a minimum capacity of 1,000 gallons when operating and be mounted on a traveling unit to place the slurry tank and spray nozzles within sufficient proximity to the areas to be seeded in order to provide uniform distribution without waste.
- B. Equipment for irrigation shall be available if deemed necessary for establishment of hydroseed.

## **PART 3 - EXECUTION**

### 3.01 SURFACE CONDITIONS

- A. Prior to all work in this section, verify grades and carefully inspect the installed work of all other trades. The Contractor shall verify that hydroseed areas are adequately graded for seed application and free of deleterious material and weeds and complete to the point where the installation may properly commence. In the event of discrepancy, immediately notify the Landscape Architect. Do not proceed with this installation in areas of discrepancies until all such discrepancies have been fully resolved.
- B. The Contractor shall obtain approval of hydroseed area preparation from the Landscape Architect prior to application.
- C. After approval of scarified finished grades, uniformly apply 2 inches of water within a 48-hour period to promote weed growth. Allow weeds to germinate a minimum of 14 days after application of water and then kill with a systemic herbicide that will not affect the subsequent germination of hydroseed mix. Provide temporary irrigation equipment required to apply the water.
- D. Install trees, shrubs and groundcover to be planted in hydroseeded area, prior to hydroseeding.

3.02 APPLICATION OF HYDROSEED

- A. The hydroseed erosion control materials shall be mixed uniformly and applied in the following proportions to all areas indicated on the drawings or as recommended by Pacific Coast Seed.

Seed mix per plan	
Fertilizer	400 lbs. / acre
Humate 40	400 lbs. / acre
AM 120 Inoculant	60 lbs. / acre
Straw	4000 lbs. / acre
Organic Binder (M-binder)	150 lbs. / acre

Mixing: Care shall be taken that the slurry preparation takes place on the site of the work. The slurry preparation should begin by adding water to the tank when the engine is at half throttle. When the water level has reached the height of the agitator shaft, good recirculation shall be established, and seed shall be added. Fertilizer shall then be added, followed by wood pulp mulch. The wood pulp mulch shall only be added to the mixture after the seed and when the tank is at least one-third filled with water. The engine throttle shall be opened to full speed when the tank is half filled with water. All the wood pulp mulch shall be added by the time the tank is two-thirds to three-fourths full. Spraying shall commence immediately when the tank is full. The operator shall spray the area with a uniform, visible coat by using the green color of the wood pulp as a guide.

- B. Application:
  - 1. Timing:
    - a. Non-irrigated hydroseed shall be applied between August 15th and December 30th.
    - b. Hydroseed materials shall not be applied during windy or rainy weather or when soil temperature is below 40 degrees F.
  - 2. Operators of hydromulching equipment shall be thoroughly experienced in this type of application. Apply specified slurry mix in a sweeping motion to form a uniform mat at specified rate.
  - 3. Keep hydromulch within areas designated and keep from contact with other plant materials.

4. Slurry mixture which has not been applied within 4 hours of mixing shall not be used and shall be removed from the site.
5. After application, the Contractor shall not operate any equipment or allow pedestrians in the covered area.
6. Daily worksheets shall be filled out by the nozzleman, with the following information: Seed type and amount, fertilizer analysis and amount, mulch type and amount, seeding additive type and amount, number of loads and amount of water, area covered and equipment used, capacity and license number.
7. Protect all adjacent hardscape and planting from over spray.

### 3.03 MAINTENANCE

- A. Any area which has not produced a healthy, established stand of grasses after a period of 30 days from the date of seeding shall be reseeded and refertilized at the original rates of application. The Contractor shall be responsible for all seeded areas until an acceptable stand of hydroseed material has been achieved.
- B. Fertilization: The Contractor shall monitor the health of the hydroseed based on grass color. When grass shows signs of yellowing, or at 45 days following application the Contractor shall fertilize hydroseeded areas with a commercial blend fertilizer of 12N-12P-12K formulation at a rate of 6 lbs./100 square feet. (The above formula and rate may be adjusted as needed to conform to actual grass condition based on an assessment by the project horticulturist).

### 3.04 CLEAN-UP

- A. Immediately after application thoroughly wash off any plant material, planting areas, paved areas, or architectural features not intended to receive slurry mix. Keep all areas of work clean, neat and orderly at all times. Keep all paved and planting areas clean during planting and maintenance operations. Clean up and remove all deleterious materials and debris from the entire work area prior to Final Acceptance or the satisfaction of the Landscape Architect.

### 3.05 INSPECTIONS

- A. Make written request for inspection prior to seeding and after areas have been seeded and planting operation completed.
- B. Submit requests for inspections to Landscape Architect at least 72 hours prior to anticipated inspection date.



**OPTIONAL:**

Item	Quantity	Unit	Unit Cost	Subtotal
<b>ADD OPTION #1 COST</b>				
<b>A. PLANTING</b>				
5 gal	17	EA		
1 gal.	317	EA		
Mulch - Pro Chip Standard (3" depth)	6090	SF		
<b>B. IRRIGATION</b>				
New Shrub Planting Irrigation	6090	SF		
<b>Option #1 Total Cost: (A through B):</b>				

Item	Quantity	Unit	Unit Cost	Subtotal
<b>ADD OPTION #2 COST</b>				
<b>A. DEMOLITION</b>				
Softscape				
Clear & Grub	16007	SF		
Tree Protection	10	EA		
<b>B. HARDSCAPE</b>				
Fine Grading	16007	SF		
Decomposed Granite	1587	SF		
Redwood Header	265	LF		
<b>C. PLANTING</b>				
Soil Prep + Amendment	14420	SF		
5 gal	240	EA		
1 gal.	347	EA		
Mulch - Pro Chip Standard (3" depth)	14420	SF		
Landscape Maintenance - 90 days	14420	SF		
<b>D. IRRIGATION</b>				
New Shrub Planting Irrigation	14420	SF		
<b>Option #2 Total Cost: (A through D):</b>				



**Base Bid Total Cost (Sections A Through F):**

\$

\_\_\_\_\_

**Optional**

Option #1 Total Cost:

\$

\_\_\_\_\_

Option #2 Total Cost:

\$

\_\_\_\_\_

*\* **Total Cost** for Base Bid, Option #1 Cost and Option #2 Cost shall include full compensation for furnishing all labor, materials, plants, tools, equipment, and Incidentals to complete the City Park Landscape Enhancements, in accordance with the current Standard Specifications of the State of California, AND, as outlined in these Specifications/Scope of Work, the Bid, the Contract, required herein; any supplemental agreements amending or extending the work; working drawings or sketches clarifying or enlarged upon the work specified herein; and to pertinent portions of other documents included by reference thereto in these Specifications.*

THIS SECTION INTENTIONALLY LEFT BLANK

**CITY OF ANTIOCH  
LANDSCAPE ENHANCEMENT: CITY PARK  
Bid No. 988-0309-22A**

The undersigned bidder declares that it has carefully examined the locations of the proposed work, plans and specifications, special provisions and read the accompanying instructions to bidders. The undersigned submitter certifies that he/she is, at the time of presenting this Bid, and shall be, throughout the length of the contract, licensed by the state of California to do the type of work required under the terms of the contract documents. Submitter further certifies that he/she is skilled and regularly engaged in the general class of work called for in the contract documents.

In accordance with the requirements, the submitter represents that he/she is competent, knowledgeable and has special skills on the nature, extent and inherent conditions of the work to be performed. Submitter further acknowledges that there are certain peculiar and inherent conditions which may create, during maintenance operations, unusual or peculiar unsafe conditions hazardous to persons and property. Submitter acknowledges that he/she is aware of such risks and that he/she has the skill and experience to foresee and to adopt protective measures to perform the maintenance services adequately and safely with respect to such hazards.

Does proposed bid conform to all requirements listed in this document and drawings? \_\_\_\_\_  
If NO, explain non-conforming specifications in detail on separate sheet.

Terms or Cash Discount (if other than net 30 days)\_\_\_\_\_

Company Name\_\_\_\_\_

Contact Name\_\_\_\_\_

Title\_\_\_\_\_

Address\_\_\_\_\_

City/State/Zip\_\_\_\_\_

Telephone\_\_\_\_\_ FAX\_\_\_\_\_

Email Address\_\_\_\_\_

Contractor's License No.\_\_\_\_\_ Exp. Date\_\_\_\_\_

City of Antioch Business License No.\_\_\_\_\_ Exp. Date\_\_\_\_\_

Signature\_\_\_\_\_ Date\_\_\_\_\_

**Bid must be in a sealed envelope with the bid number, closing date, and time on the outside envelope.**

DELIVER BID SUBMITTAL TO:  
CITY OF ANTIOCH  
PUBLIC WORKS  
**988-0309-22A**  
1201 W 4<sup>TH</sup> STREET  
ANTIOCH, CA 94509

**NON-COLLUSION AFFIDAVIT**

***THIS PAGE MUST BE NOTARIZED***

**CITY OF ANTIOCH  
Landscape Enhancements:  
City Park**

**Bid No. 988-0309-22A**

The Bidder, by its officers and agents or representatives present at the time of filing this bid, being duly sworn on their oaths say, that neither they nor any of them have in any way directly or indirectly entered into any arrangement or agreement with any other bidder, or with any public officer of the CITY OF ANTIOCH whereby such affiant or affiants or either of them has paid or is to pay to such bidder or public officer any sum of money, or has given or is to give to such other bidder or public officer anything of value whatever, or such affiant or affiants or either of them has not directly or indirectly entered into any arrangement or agreement with any other bidder or bidders, which tends to or does lessen or destroy free competition in the letting of the contract sought for on the attached bids; that no bid has been accepted from any subcontractor or supplier through any bid depository, the By-Laws, Rules or Regulations of which prohibit or prevent the Contractor from considering any bid from any subcontractor or supplier which is not processed through said bid depository, or which prevent any subcontractor or supplier from bidding to any Contractor who does not use the facilities or accept bids from or through such bid depository; that no inducement of any form or character other than that which appears upon the face of the bid will be suggested, offered, paid or delivered to any person of the contract, nor has this bidder any agreement or understanding of any kind whatsoever, with any person whomsoever to pay, deliver to, or share with any other person in any way or manner, any of the proceeds of the contracts sought by this bid.

NAME \_\_\_\_\_

SIGNATURE \_\_\_\_\_

TITLE \_\_\_\_\_

Subscribed and sworn to before me by:

\_\_\_\_\_

This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_  
Notary Public

ATTACHMENT "A"

PAYMENT BOND (IF SELECTED)  
**THIS PAGE MUST BE NOTARIZED**

**CITY OF ANTIOCH**  
**Landscape Enhancements: City Park**  
**Bid No. 988-0309-22A**

KNOW ALL PERSONS BY THESE PRESENTS, that

WHEREAS, the CITY OF ANTIOCH, (hereinafter referred to as "City") and \_\_\_\_\_, (hereinafter referred to as "Principal") have entered into a Contract for the \_\_\_\_\_; and

WHEREAS, under the terms of said Contract, Principal is required to furnish a bond securing payment of the claims to which reference is made in Section 3248 of the Civil Code,

NOW, THEREFORE, we, the Principal, and \_\_\_\_\_ as Surety, are held and firmly bound unto the City in the penal sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_) lawful money of the United States, being not less than one hundred percent (100%) of the amount payable by the terms of the Contract, for the payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such that if said Principal or any of its subcontractors fails to pay any of the persons named in Section 3181 of the Civil Code, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over the Employment Development Department from the wages of employees of the Principal or its subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, the Surety will pay for the same and also will pay, in case suit is brought upon this bond, a reasonable attorney's fee, to be fixed by the court.

This bond will insure to the benefit of any of the persons named in Section 3181 of the Civil Code so as to give a right of action to such persons or their assigns if any suit is brought upon this bond.

This bond is given to comply with Sections 3247 and 3248 of the Civil Code. The liability of the Principal and Surety hereunder is governed by the provisions of said Code, all acts amendatory thereof, and all other statutes referred to therein, including Section 3225 of the Civil Code.

The Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their seals this **XXX** day of **XXXXXX**, 2022, the name and corporate seal of each corporate body being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

\_\_\_\_\_  
(Principal)

By \_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

Note:  
To be signed by Principal  
and Surety and acknowledgment  
and notarial seal attached.

\_\_\_\_\_  
(Surety)

\_\_\_\_\_  
Address

\_\_\_\_\_

By \_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

## ATTACHMENT "B"

## SAMPLE AGREEMENT

THIS AGREEMENT, made and entered into this xxth day of \_\_\_\_\_, 2022 by and between XXXXXXXX, hereinafter called "CONTRACTOR" and the CITY OF ANTIOCH, hereinafter called the "CITY."

WITNESSETH, that the CONTRACTOR and the CITY, for consideration hereinafter named, agree as follows:

1. SCOPE OF WORK

The work consists, in general, of furnishing all materials, labor, tools, plant, supplies, equipment, transportation and superintendence necessary to perform the work required for LANDSCAPE ENHANCEMENTS: CITY PARK. The work is more fully described in the RFP Contract & Specifications Bid Document, and also in the Contract Documents. The Contract Documents are defined below in Section 4 of this Agreement.

2. TIME OF COMPLETION

After this Agreement has been executed by the parties, the CONTRACTOR shall begin work within ten (10) calendar days after the effective date of the Notice to Proceed, and shall diligently prosecute all of the work under this Agreement in all parts and requirements as defined in the Contract Documents, from the effective date of said Notice to Proceed. The period of performance shall be ninety (90) working days from the Notice to Proceed.

3. TOTAL BID PRICE

The CONTRACTOR shall faithfully perform all of the work hereunder for the Contract Price of XXXXXXXXXXXXXXXXXXXXX dollars (\$XXXXXX.00), payable by the CITY to the CONTRACTOR at the time and in the manner provided in the Contract Documents.

4. COMPONENT PARTS

This Agreement shall consist of the following documents, each of which is on file in the City of Antioch, Capital Improvements Department, and all of which are incorporated herein by this reference:

- A. Agreement
- B. Notice Inviting Bids (RFB); including but not limited to:
  - a. Description of Project (Specifications and Scope of Work)
  - b. General Terms and Conditions
- C. Description of Project (Equipment)
- D. Special Provisions
- E. Performance Bond
- F. Payment bond
- G. Bid Submittal Forms

5. SERVICE OF NOTICE

Any notice required or permitted to be given under this Agreement shall be deemed given when personally delivered to recipient thereof or mailed by registered or certified mail, return receipt requested, postage pre-paid, to the appropriate address specified in the CONTRACTOR's bid, and in the case of

the CITY, to P. O. Box 5007, Antioch, CA 94531-5007, or at any other address which either party may subsequently designate in writing to the other party.

6. GOVERNING LAW

This Agreement shall be governed and construed in accordance with the laws of the State of California. Any action relating to this Agreement shall be instituted and prosecuted in a court of competent jurisdiction in the State of California. Each party hereby appoints the party listed opposite its name to act as its initial agent for service of process relating to any such action:

CITY: Department of Public Works  
City of Antioch  
200 "H" Street  
P. O. Box 5007  
Antioch, CA 94531-5007

CONTRACTOR: XXXXX Company  
XXXXX, Company Rep  
XXXXX, Company Address  
XXXXX, CA 9XXXX

Each such agent is hereby authorized and directed to accept service of process in any such action on behalf of his principal until such time as his successor shall have been appointed by his principal and notice thereof has been delivered to the other party in the manner provided herein for the giving of notice.

THIS SECTION INTENTIONALLY LEFT BLANK

**CONTRACTOR:**

**XXXXXXXXXXXX**

Name Under Which Business is Conducted

The undersigned certify that they sign this Agreement with full and proper authorization so to do:

\*By: \_\_\_\_\_

Title: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

*\* If CONTRACTOR is a corporation, this Agreement must be executed by two officers of the corporation, consisting of: (1) the President, Vice President, or Chair of the Board; and (2) the Secretary, Assistant Secretary, Treasurer or Chief Financial Officer. In the alternative, this Agreement may be executed by a single officer or a person other than an officer provided that evidence satisfactory to the CITY is provided demonstrating that such individual is authorized to bind the corporation (e.g. – a copy of a certified resolution from the corporation’s bylaws).*

**CITY OF ANTIOCH, CALIFORNIA  
A Municipal Corporation**

By: \_\_\_\_\_  
Cornelius Johnson, Interim City Manager

By: \_\_\_\_\_  
Elizabeth Householder, City Clerk

**APPROVED AS TO FORM:**

By: \_\_\_\_\_  
Thomas Lloyd Smith, City Attorney



## ATTACHMENT "C"

## INSURANCE REQUIREMENTS

Please refer to the insurance requirements listed below. **Those that have an "X" indicated in the space before the requirement apply to Contractor's Agreement.**

Contractor shall procure and maintain for the duration of the Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the Contractor, its agents, representatives, employees or subcontractors.

Contractor shall provide its insurance broker(s)/agent(s) with a copy of these requirements and request that they provide Certificates of Insurance complete with copies of all required endorsements.

Contractor shall furnish City with copies of original endorsements affecting coverage required by this Exhibit D. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. All endorsements and certificates are to be received and approved by City before work commences. City has the right to require Contractor's insurer to provide complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications.

**Commercial General Liability (CGL):**

Coverage at least as broad as Insurance Services Office ("ISO") Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal and advertising injury with limits no less than **\$2,000,000.00** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

Coverage at least as broad as ISO Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal and advertising injury with limits no less than **\$1,000,000.00** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

Coverage at least as broad as ISO Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal and advertising injury with limits no less than **\$5,000,000.00** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

**Automobile Liability:**

Coverage at least as broad as ISO Form Number CA 0001 covering, Code 1 (any auto), of if Contractor has no owned autos, Code 8 (hired) and 9 (non-owned), with limits no less than **\$1,000,000.00** combined single limit for bodily injury and property damage.

Coverage at least as broad as ISO Form Number CA 0001 covering, Code 1 (any auto), with limits no less than **\$5,000,000.00** combined single limit for bodily injury and property damage.

Garage keepers' extra liability endorsement to extend coverage to all vehicles in the care, custody and control of the Contractor, regardless of where the vehicles are kept or driven.

**Professional Liability (Errors and Omissions):**

\_\_\_ Insurance appropriate to the Contractor’s profession, with limit no less than \$1,000,000.00 per occurrence or claim, \$2,000,000.00 aggregate.

\_\_\_ (If Design/Build), with limits no less than \$1,000,000.00 per occurrence or claim, and \$2,000,000.00 policy aggregate.

\_\_\_ Insurance appropriates to the Contractor’s profession, with limit no less than \_\_\_\_\_ per occurrence or claim, \_\_\_\_\_ aggregate

**Workers’ Compensation Insurance:**

X Insurance as required by the State of California, with Statutory Limits, and Employer’s Liability Insurance with limit of no less than **\$1,000,000.00** per accident for bodily injury or disease. *(Not required if Contractor provides written verification, it has no employees. Waiver needed.)*

The Employer’s Liability policy shall be endorsed to waive any right of subrogation as respects the City, its elected and appointed officials, officers, attorneys, agents, and employees.

**Builder’s Risk (Course of Construction):**

\_\_\_ Insurance utilizing an “All Risk” (Special Perils) coverage form, with limits equal to the completed value of the project and no coinsurance penalty provisions. If the project does not involve new or major reconstruction, at the option of the City, an Installation Floater may be acceptable. For such projects, a Property Installation Floater shall be obtained that provides for the improvement, remodel, modification, alteration, conversion or adjustment to existing buildings, structures, processes, machinery and equipment. The Property Installation Floater shall provide property damage coverage for any building, structure, machinery or equipment damaged, impaired, broken, or destroyed during the performance of the Work, including during transit, installation, and testing at the City’s site.

**Contractor’s Pollution Legal Liability:**

\_\_\_ Contractor’s pollution legal liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) with limits no less than \$1,000,000.00 per occurrence or claim and \$2,000,000.00 policy aggregate.

If the Contractor maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to City.

**Cyber Liability Insurance**

\_\_\_ Cyber Liability Insurance with limits not less than \$1,000,000 per claim.

Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by Contractor in this Agreement and shall include, but not be limited to, claims involving infringement of intellectual property, including but not limited to infringement of copyright, trademark, trade dress, invasion of privacy violations, information theft, damage to or destruction of electronic information, release of private information, alteration of electronic information, extortion, and network security.

The policy shall provide coverage for breach response costs as well as regulatory fines and penalties, and credit monitoring expenses with limits sufficient to respond to these obligations.

**Surety Bonds:**

Contractor shall provide the following Surety Bonds:

- Bid Bond
- Performance Bond
- Payment Bond

The Payment Bond and Performance Bond shall be in a sum equal to the contract price. Bonds shall be duly executed by a responsible corporate surety, authorized to issue such bonds in the State of California and secured through an authorized agent with an office in California.

**Other Insurance Provisions:**

The insurance policies are to contain, or be endorsed to contain the following provisions:

X **Additional Insured Status and Primary/Non-Contributory Language:**

Contractor’s general liability and automobile liability policies shall be primary and shall not seek contribution from the City’s coverage and be endorsed to add the City and its officers, officials, employees, and agents as additional insureds under such policies using Insurance Services Office form CG 20 10 (or equivalent) on the general liability policy. For construction projects, an endorsement providing completed operations coverage for the additional insured on the general liability policy, ISO form CG 20 37 (or equivalent), is also required.

The limits of insurance required in this Agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of City (if agreed to in a written contract or agreement) before the City’s own insurance or self-insurance shall be called upon to protect it as a named insured.

     **Loss Payee Status – Builder’s Risk/Course of Construction Insurance (applicable to Construction Contracts only)**

Contractor may submit evidence of Builder’s Risk insurance in the form of Course of Construction coverage. Such coverage shall name the City as a loss payee as their interest may appear.

     **Notice of Cancellation, Suspension or Otherwise Voiding Policies:**

Each insurance policy required above shall contain or be endorsed to contain that coverage shall not be suspended, voided, canceled or reduced in coverage or in limits except with thirty (30) days’ prior written notice by certified mail, return receipt requested to the City.

     **Waiver of Subrogation:**

Contractor hereby grants to City a waiver of any right to subrogation which any insurer of said Contractor may acquire against the City by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the City has received a waiver of subrogation endorsement from the insurer. The Workers’ Compensation Policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by Contractor, its employees, agents and subcontractors.

     **Completed Operations**

For Construction Agreements, Contractor shall maintain insurance as required by this Agreement to the fullest amount allowed by law and shall maintain insurance for a minimum of five (5) years following the completion of

this project. In the event Contractor fails to obtain or maintain completed operations coverage as required by this Agreement, the City at its sole discretion may purchase the coverage required and the cost will be paid by Contractor.

THE FOLLOWING PROVISIONS APPLY TO ALL AGREEMENTS

**Deductibles and Self-Insured Retentions (“SIR”):**

Any deductibles or self-insured retentions must be declared to and approved by City. The City may require the Contractor to purchase coverage with a lower deductible or retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. At the option of the City, either (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its elected and appointed officials, officers, attorneys, agents, and employees; or (2) the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

All SIRs must be disclosed to Risk Management for approval and shall not reduce the limits of liability.

Policies containing any SIR provision shall provide or be endorsed to provide that the SIR may be satisfied by either the named insured or the City.

City reserves the right to obtain a full-certified copy of any insurance policy and endorsements. Failure to exercise this right shall not constitute a waiver of right to exercise later.

**Acceptability of Insurers:**

Insurance is to be placed with insurers with a current A.M. Best’s rating of no less than A-:VII, unless otherwise acceptable to City.

**Claims Made Policies: (note - should be applicable only to professional liability, see below)**

1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
2. Insurance must be maintained, and evidence of insurance must be provided for at least five (5) years after completion of contract of work.
3. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the contract effective date, the Contractor must purchase “extended reporting” coverage for a minimum of five (5) years after completion of work.
4. A copy of the claims reporting requirements must be submitted to the City for review.
5. If the services involve lead-based paint or asbestos identification/remediation, the Contractor’s Pollution Liability Policy shall not contain lead-based paint or asbestos exclusions. If the services involve mold identification/remediation, the Contractors Pollution Liability Policy shall not contain a mold exclusion, and the definition of Pollution shall include microbial matter, including mold.

**Subcontractors:**

Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that City is an additional insured on insurance required from subcontractors.

Subcontractor agrees to be bound to Contractor and City in the same manner and to the same extent as Contractor is bound to City under this Agreement and any other contract documents. Subcontractor further agrees to include the same requirements and provisions of this Agreement, including the indemnity and

insurance requirements, with any sub-subcontractor to the extent they apply to the scope of the sub-subcontractor's work. A copy of the City indemnity and insurance provisions will be furnished to the subcontractor upon request.

**Verification of Coverage:**

Contractor shall furnish the City with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the City before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The City reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

**Special Risks or Circumstances**

City reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage or other special circumstances.

**Failure to Comply:**

Each insurance policy required above shall contain or be endorsed to contain that any failure to comply with reporting provisions of the policies shall not affect coverage provided to the City, its elected and appointed officials, officers, attorneys, agents, and employees.

**Applicability of Coverage:**

Each insurance policy required above shall contain or be endorsed to contain that the Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.